

## Comments of Mark Sievers, Chairman

### Kansas Corporation Commission Before the Senate Utilities Committee January 16, 2013

Thank you for the opportunity to talk with you about the Kansas Corporation Commission.

I'm Mark Sievers. I am deeply honored to be the current chairman of the Commission. The other Commissioners include Thomas Wright and Shari Feist Albrecht. I've been in the job since May of 2011. The other two members of the senior management of the agency include our Executive Director, Patti Petersen-Klein and our General Counsel, Dana Bradbury. Patti manages the operations of the agency and Dana manages the legal filings and provides legal advice to the Commission.

After the last election, about 40% of Kansas legislators are new, and both the House and the Senate created new committees to deal with energy and environmental issues. Given those changes, I'd like to provide you with an overview of the Commission, what's happened in the last year and the significant challenges confronting Kansas.

I've provided you with some basic background materials that attempt to summarize the work efforts of the Commission over the last year and, in each area regulated by the Commission, some factual information about the industry and its impact on Kansas. I hope that it's helpful. I apologize in advance as it's a bit more detail than one usually sees with legislative materials.

At a high level, the Commission regulates public utilities, commercial motor vehicles, oil and gas and serves as the state's energy office.

The Commission's activities fall into four different areas: (1) ratemaking; (2) prevention of market failures; (3) administration of tax and subsidy programs; and (4) agency management.

#### **RATEMAKING**

Ultimately, the Commission is an economic regulator – it sets or approves the prices paid by Kansas utility consumers and the profits realized by investors in Kansas utilities.

The Commission's economic ratemaking activities are focused on preventing the exercise of market power from providers who have a government-enforced monopoly. The Commission's legal touchstone is the public interest and a determination of just and reasonable rates.

This regulatory activity includes regulation of traditional, investor-owned utilities – electric power, natural gas, and water. The Commission does not generally engage in rate and profit regulation with firms where the exercise of market power by monopoly providers is not a threat – that includes the non-jurisdictional utilities, such as cooperatives and municipal utilities where consumers elect their utilities’ management and share in the profits such entities might generate.

In this role, the Commission stands in the place of the market and seeks to imitate the rates, terms and conditions that would have prevailed in a competitive market. It is also fulfilling the government’s 5<sup>th</sup> Amendment obligations to determine just compensation for private property devoted to public service.

In the background materials I would draw your attention to two areas that touch on utility ratemaking in the energy area.

First, probably everyone agrees that utilities are essential services – when the price of electric, gas or water service increases, consumers will cut back on something else rather than curtail their utility use. In the worst case, firms will choose to locate in other states if the price of electricity is too high in Kansas. The Kansas Policy Institute estimates that each 10% increase in Kansas electric rates reduces Kansas employment by 0.2% and reduces Kansas wages by about 0.6%.

According to the Energy Information Administration, in Kansas, over the last five years, the average residential bill has increased by about 36% to about \$105/month compared to an increase of about 15% or \$110/month for the nation as a whole.

I’ve provided a variety of comparisons of Kansas electric rates and the US and surrounding states as well as how those rates, bills and usage have changed over time. The significant increases in recent years are driven largely by extraordinary environmental compliance costs. The background materials provide some detail on these environmental costs. At a high level, in Kansas, about \$2 billion in environmental compliance costs are being implemented by Westar and KCP&L and working their way into rates. To put that figure in perspective, Kansans spend about \$6 billion annually in their purchase of electric services.

The Commission participates in an environmental work group with the Kansas Department of Health and Environment (KDHE) to monitor environmental requirements.

Second is wind. The Commission does not regulate wind farms or set the price of wind generated electricity. However, wind finds its way into electric rates through the cost of transmission facilities that connect wind farms to the grid and affect the reliability of the electric grid, and in legislative requirements throughout the United States that mandate a mixture of renewable generation resources.

The Commission recently opened a proceeding to quantify the impact of the renewable portfolio standard on rates, so I cannot say what the rate impact is as I stand here today. However, nationally, each 10% increase in the mix of renewable generation resources – which include hydro, solar, wind and biomass – is associated with residential electric rates that are about 1% lower; everything else held constant. The reason is pretty simple – there’s no recurring fuel cost and no emissions regulations to deal with for water, wind or sunshine. A widely cited rule of

thumb for electric power is that 60% of the price is driven by fuel costs and 10% by transmission costs.

Apart from its impact on utility rates, wind is an economic development opportunity for Kansas. Wind represents construction jobs, manufacturing jobs, lease payments to landowners, money from wind energy exports, and property taxes for local governments. Wind also provides an element of competition to vertically integrated monopoly generation and transmission operations.

There are 18-20 large commercial wind farms in Kansas and about 2.6 GW of wind energy is in place or under development in Kansas. Those farms are connected to the grid through a mix of public utility and private carriage transmission facilities. More than \$1.4 billion in public utility transmission projects are under construction in Kansas.

Other states invest in wind and renewable resources as a means of advancing environmental policy objectives by mandating renewable portfolio standards. Mandates are not what Kansas wind is about. About 55% of wind energy generated in Kansas is exported from Kansas, which is "new" money for the Kansas economy. I tell my colleagues from other commissions – "I love it when your legislature increases your RPS goals because that means more money for Kansas."

A Department of Energy study of more than 1,000 counties that have wind projects estimated that every megawatt of installed wind capacity generates ½ a job and adds about \$11,000 to the county gross domestic product in the form of payments to landowners, property taxes and local wages. Each wind tower you see in Kansas is typically 3 MW of installed capacity, so each wind tower represents about 1½ jobs and \$33,000 for the local economy.

Wind also provides a hedge against federal environmental compliance efforts directed against fossil-fuel energy sources. If fossil-fuel generation facilities are prematurely retired to comply with federal environmental mandates, Kansas wind can help fill the hole. The best estimates that I've seen suggest that EPA mandates will prematurely retire around 15% of the nation's coal-fired generation fleet. That's a market opportunity for Kansas wind.

## **PREVENTING MARKET FAILURE**

In the second major regulatory area, the Commission's activities are focused on minimizing harm from market imperfections in otherwise competitive industries. This includes regulation of commercial motor vehicles, oil and gas production, pipeline safety and the energy division. In each of these areas, but for some government oversight or involvement, market incentives would produce undesirable results or a market failure.

For example, safety regulation is typically thought of as a mechanism to incent activities that would not otherwise occur but for some sort of government intervention. Vehicle inspections, pipeline inspections, 811 "call before you dig," limits on drivers' work times, drug and alcohol testing for truck drivers, minimum driver qualifications, and set back requirements for oil and gas wells fall into this category.

The conservation division is focused on two areas of potential market failure: preventing over-exploitation of oil and gas resources and environmental protection. At a high level, there are about 63,000 producing oil wells and 24,000 gas wells in Kansas along with more than 5,600

abandoned wells, so this area consumes considerable work effort at the Commission. Your background materials have a map that shows oil and gas development in Kansas.

Absent spacing regulation, oil and gas producers would have an economic incentive to drill on the edge of their leases to take oil from their neighbors. Spacing regulations are designed to prevent the theft of neighboring oil and gas, which is a form of market failure. Thus, the Commission's regulations serve as a mechanism to ensure an orderly oil and gas market.

Fundamentally, oil and gas drilling are mining operations that involve pumping fluids from prehistoric oceans, separating the oil and gas, and disposing of the salty waste water. The division's activities in this area focus on preventing contamination of fresh groundwater resources from this salty water or preventing the waste water from flowing into underground salt or limestone formations that can create surface subsidence or sinkholes. The rationale for regulation in this area is that but for government oversight, the market would not have an economic incentive to protect groundwater or prevent infiltration into underground formations.

The Commission's rules surrounding pits, drilling waste disposal, mechanical integrity testing and casing construction all fall into this environmental protection category.

In the background materials I've provided you, you'll see some statistics and maps surrounding well plugging, pit inspections, mechanical integrity tests for disposal wells and the Commission's environmental monitoring and mediation efforts. As an example of work efforts in this area, I've provided you with a map showing the mediation and monitoring efforts around the city of Wichita designed to protect its drinking water from contamination from old oil and gas operations. The Commission also provides the legislature with reports in this area as well as reports dealing with abandoned well plugging.

The oil development associated with horizontal drilling is remarkable. The Commission has approved more than 270 sites for horizontal drilling in the last year or so. Last year, the Commission streamlined its review process that treated horizontal drilling different from standard drilling operations. The result was a reduction in application processing times that averaged around 40 days to one that now averages around 4 or 5 days and provides the same level of oversight.

Thanks to the combination of two technologies – fracking and horizontal drilling – our nation has the potential to become energy independent. It also creates economic incentives to substitute natural gas for coal which, like it or not, is increasingly burdened by federal environmental mandates that raise the cost of coal-generated electricity. For Kansas, it has resulted in significant economic development as producers exploit previously uneconomic deposits. A University of Texas study of horizontal wells in the Eagle-Ford formation reported that each well contributes about \$7.7 million to state GDP over the life of the well. The Commission works with the Department of Commerce to track the Mississippian lime play.

## **TAXES AND SUBSIDIES**

Many years ago, Richard Posner, who is now a federal appeals court judge, wrote that utility regulators are agents of government fiscal taxation policy. In Posner's view, utility regulators,

like the Kansas Commission, are charged with assessing and collecting the explicit and implicit taxes and subsidies enacted to advance political objectives.

From an economist's perspective, taxes and subsidies are problematic because they typically put the government in the role of picking winners and losers and involve coercion when people are forced to pay for services they would not willingly purchase.

A measure of the public interest is who the public elects to office and why. In the last election cycles, it seems apparent that Kansans don't tolerate public officials who seek to raise or maintain high taxes and object to programs that ultimately expand the size and scope of government.

Let me describe a couple of examples. The Commission is where the costs of federal EPA mandates are translated into utility prices – said differently; the Commission is the point at which federal environmental “taxes” are quantified and passed on to the public. The Commission is not asked to pass on the wisdom of such mandates; the Commission is relegated to putting a price tag on those EPA mandates.

The Kansas legislature also enacts taxes and subsidies that are administered by the Commission. For example, the Kansas Universal Service Fund (KUSF) is an assessment of 6% that's levied on telecommunications services to fund a variety of programs and support telephone companies. To date, the KUSF represents about 6%, or \$62 million, collected from Kansas consumers. Since its inception, the KUSF has provided around \$1 billion in subsidies to telephone companies, the disabled and low income consumers.

That's on top of the approximately 16.7% Federal Universal Service Fund mandated by the FCC. Kansas telephone companies receive around \$173 million annually in federal universal service support, which is among the highest subsidy drawn from the federal fund. It means that consumers in other states are subsidizing telephone service in Kansas and consumers within Kansas are entangled in subsidies of telephone service to benefit other Kansas consumers. Those subsidy schemes depend on regulation to enforce the transfers between consumers.

In the materials I've provided you there are comparisons of the KUSF and other states, and a listing of the companies who receive the KUSF. As with the EPA's environmental mandates, the Commission does not pass on the wisdom of the program, but merely acts as a conduit between the taxation and subsidy policies set by the legislature and the prices people actually pay.

Because of unique Kansas statutes, with the changes in federal universal service support, the KUSF could grow significantly.

Funding the transmission lines built in the Southwest Power Pool (SPP) footprint also involve substantial subsidies. Generally, the costs of lines greater than 345kv are spread among the members of the SPP according to size. That's good news when you're building transmission in your service area, because someone else is paying most of the costs. But it also means that your transmission costs can increase whenever transmission facilities are built in other states. In addition, Congress has mandated incentives for transmission projects that take the form of higher rates of return for transmission projects – incentives that are cynically referred to as “FERC candy” in the regulatory community. In Kansas, that subsidy system supported the Kansas

projects, but means that we can expect to see rate increases even after we stop building transmission when SPP transmission projects in other states are built.

In the last legislative session, the Senate Utilities Committee held hearings on rate designs focused on all electric construction. That's fundamentally a taxation question and a determination of what is the fair share of common costs that should be borne by a class of customers. I recently met with a large electric customer who buys more than \$1 million of electric service. He complained that his rate structure included demand charges that churches did not pay. He wanted the same rate design that churches enjoy. Such cost allocations and rate design issues are essentially fiscal policy decisions to determine who pays and who should be subsidized.

I point out that there are no easy or conceptually pure political choices in this area. For example, one could understandably object to tax subsidies or mandates for wind or renewable energy on the economic logic that the industry should stand on its own. Using that same economic logic, however, one should also be opposed to telephone universal service subsidies, subsidies for transmission facilities and subsidies built into rate structures. Every taxation and subsidy program has its political proponents and opponents that will present you with a test of your political principles as you determine what's best for Kansas.

#### **AGENCY MANAGEMENT**

The last category of Commission activities includes day-to-day agency management. In this area, I'm grateful to have Patti Petersen-Klein managing the agency as our Executive Director.

Fundamentally, the Commission is largely a fee-funded agency. We have a total of 211.5 FTEs spread out in 6 offices. About ½ of the agency – about 90 people – is devoted to oil and gas conservation matters.

In some respects, the Commission is a miniature court system that processes around 5,000 filings each year; last year we opened about 1,200 dockets and issued about 2,200 orders. We conducted rate cases for virtually every major jurisdictional utility involved in energy matters. About 45% of the 1,400 telecom filings were related to the KUSF subsidies, the remainder were ministerial in nature, like name changes, routine tariff filings and adoption of an already approved interconnection agreement. Said differently, but for the KUSF, there would be very little substantive activity in telecom regulation.

If you count the transportation civil assessments issued by the Kansas Highway Patrol, we issued about 5,900 orders or actions that had a monetary penalty associated with them, for a total of \$1.7 million in fines and penalties.

Much to my dismay, all of this is currently processed on paper that comes across my desk. A major effort is underway to transform this to electronic filing and processing. There's a map in the background materials that shows which state utility commissions and courts do electronic filings.

Last year, we streamlined the processing of economic orders dealing with transportation companies and that reduced processing times from about 10 days to 1 day and took around 800

routine paper orders out of the work flow. We streamlined the processing of horizontal well applications that reduced processing time from around 40 days to 4 or 5.

We are implementing disciplined performance evaluations so that employees know what is expected of them and regularly receive performance reviews.

For me, coming from private industry, one of the biggest shocks included open meeting laws that squelch substantive discussions between Commissioners and *ex parte* communications restrictions that similarly inhibit communications between the Commissioners and their own staff. Needless to say, dealing with those restrictions is an on-going governmental challenge.

With that, I'd be delighted to answer any questions.

## TOP KCC CHALLENGES

<p><b>Energy Challenges</b></p>	<ol style="list-style-type: none"> <li>1. <b><u>Environmental Compliance.</u></b> Significant EPA regulations [emissions, MACT (mercury), RICE emissions on diesel generators, NSPS (CO<sub>2</sub> emissions), coal ash classification], dramatically increase infrastructure costs (more than \$2 billion in retrofit costs for Westar and KCP&amp;L) and threaten system reliability if they result in premature retirement of base load generating plants.</li> <li>2. <b><u>Nuclear.</u></b> Closure of Yucca Mountain creates uncertainty surrounding disposal of spent nuclear fuel. Spent fuel will likely have to be placed in dry cask storage on-site. Costs are unknown.</li> <li>3. <b><u>Oil.</u></b> Mississippian oil play, horizontal drilling &amp; fracking create <u>significant</u> potential for economic growth. Several uncertainties exist: (1) full potential is, as yet, unknown; (2) how environmental concerns (disposal of well cuttings, fracking, water use) are handled will drive development; (3) extending electric power to drilling sites will affect rural electric companies; (3) boom-town issues are potentially challenging for local governments; and (4) the EPA has shown interest in fracking.</li> <li>4. <b><u>Gas.</u></b> Replacing aging gas pipeline infrastructure is challenging in a weak economic environment with historically low gas prices. Increased environmental restrictions on coal make gas-generation more attractive. Collapse of natural gas price incents gas wells to cease production.</li> <li>5. <b><u>Renewables.</u></b> Kansas wind development &amp; export affected by: (1) tax incentives for wind generators; (2) deployment of transmission facilities between RTOs to facilitate sales of Kansas wind to East Coast markets; and, (3) cost allocation of transmission projects [compare common carrier model (ITC, Prairie Wind) v. private carrier model (Clean Line, BP)]. Wind and transmission deployment drives economic development in rural Kansas. Allocation of costs of out-of-state SPP transmission projects to Kansas could grow transmission expenses even when new transmission is not being built in Kansas. Interest by large industrial customers in controlling renewable generation dedicated to their operations.</li> <li>6. <b><u>Energy Efficiency.</u></b> Rate-base rate-of-return regulation discourages investments in energy efficiency or alternatives that do not involve capital investment in infrastructure.</li> </ol>
<p><b>Telecom Challenges</b></p>	<ol style="list-style-type: none"> <li>1. <b><u>Federal USF/ICC Reform.</u></b> Unique Kansas laws [66-2005(c)(1) (recovery through KUSF of any change in interstate access revenues) &amp; 66-2008(e) (recovery of embedded costs)], could cause 6% KUSF assessment to balloon to make up losses in federal support for rural telcos (\$20M est), disadvantaging Kansas in attracting telecom intensive investment and jobs (e.g., call centers). New carriers are applying for KUSF support as wireless ETCs or Lifeline-only carriers.</li> <li>2. <b><u>Wireless Substitution for Landline.</u></b> 60% of Kansas telecom spending is for wireless phones; wireless subscriptions outnumber landlines by about 2.5:1. Who pays for stranded/idle landline plant as consumers migrate away from subsidized traditional landline phones?</li> </ol>
<p><b>Agency Management Challenges</b></p>	<ol style="list-style-type: none"> <li>1. <b><u>Paper Intensive Work Processes.</u></b> 5,000 annual filings, 1,300 dockets and 2,000 orders probably add 1-7% to cost of service.</li> <li>2. <b><u>Delegation.</u></b> Routine items (e.g., \$100 fines) are circulated to all three Commissioners for review &amp; approval adding costs and delay. Ability to delegate decision making is difficult.</li> <li>3. <b><u>Job Scope &amp; Structure.</u></b> Transition to a performance metrics driven, cross-trained organization w/strong, accountable managers consistent with work load.</li> <li>4. <b><u>Communications Inhibitions.</u></b> Open meeting and <i>ex parte</i> rules inhibit communication between Commissioners and their staff.</li> </ol>



**Kansas**  
CORPORATION COMMISSION

**Kansas Corporation Commission**  
*Overview, Metrics & Issues*

*Mark Sievers*  
**Chairman**

**January 2013**  
*Senate/House Utility Committees*

Kansas Corporation Commission

**KANSAS CORPORATION COMMISSION**  
**AREAS OF RESPONSIBILITY (PRINCIPLE FOCUS)**

- **Utilities (prices/economic regulation/subsidies)**
  - Electric (passing along environmental compliance costs)
  - Gas (aging infrastructure, rate structure focus)
  - Telecom (subsidy focus)
  - Water (financial focus)
- **Pipelines (safety/externalities)**
- **Oil & Gas drilling (operations/externalities)**
  - Fracking & oil boom (water resources)
  - Environmental protection (water resources)
- **Trucking (safety/externalities)**
- **State Energy Office (grants & programs)**

## KCC ACTIVITY METRICS -- 2013

Activity	Approximate Annual Metrics
Staffing & Budget (2013)	211.5 FTE; \$22.4M; fee funded
Agency filings	5,000 filings; 2,200 orders 1,200 dockets opened 20 federal (FERC & FCC) filings
Major Proceedings > 80 hours to complete	18 proceedings; 4 appeals; 20,000 hours of professional staff time 8,700 hours of legal staff time
Oil & Gas wells	3,900 well inspections; 6,757 well permits granted 273 + horizontal wells
Transportation	57,000 drivers & 35,000 vehicle inspections 450 compliance reviews/audits 160 educational seminars (1,800 attendees)
Pipeline Safety	700 person-days on-site inspections
Public Affairs	2,767 complaints; 2,709 public comments; \$103,471 returned to consumers

## KCC's 3 MISSIONS

### ➤ Economic Mission

- Minimize public harm due to market imperfections
  - Control the exercise of market power, address negative externalities
  - Set "just and reasonable" rates for monopoly providers

### ➤ Legal Mission

- Prevent takings (5<sup>th</sup> Amendment) & provide due process
- Ensure compliance with applicable statutes, regulations

### ➤ Managerial Mission

- Responsible steward of public resources

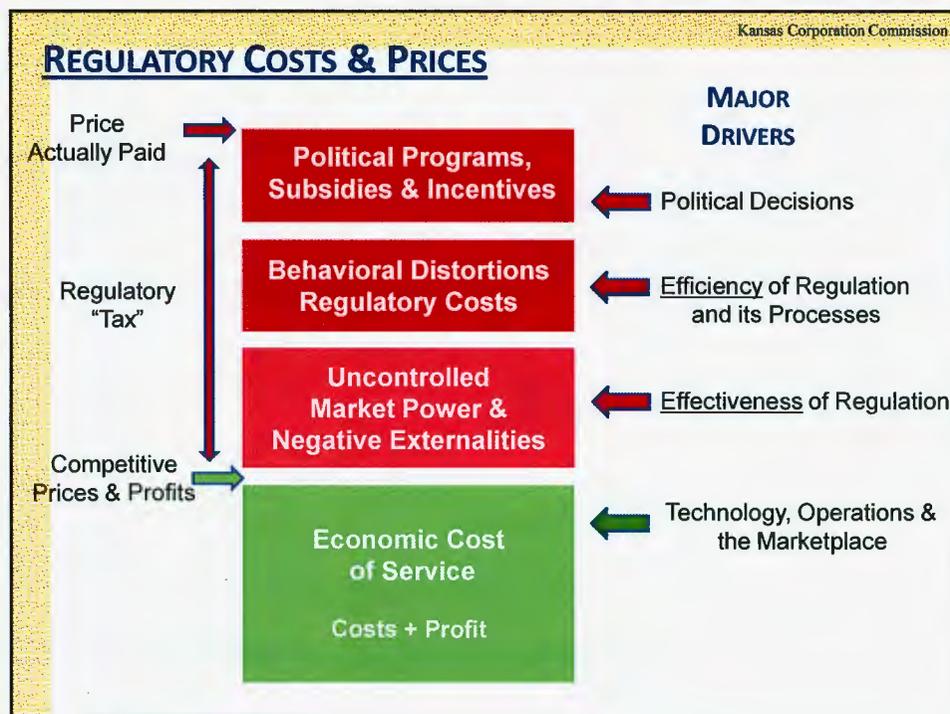
Kansas Corporation Commission

## BROWNBACK'S ROAD MAP OBJECTIVES

### WHO THE PUBLIC ELECTS IS A MEASURE OF THE PUBLIC INTEREST

- Jobs & economic development
  - How does this affect jobs?
  - Reduce tax burdens
    - Reduced taxes = enhanced economic development
- Improve government
  - Reduce taxes and the size of government.
    - Is there a smarter, cheaper, quicker way to do this?
  - Does this improve public confidence in government?
- Development of Kansas' resources
  - Kansas is the Wind state
    - Does this improve Kansas' ability to export wind?
  - Kansas is an oil & gas state





## ELECTRICITY METRICS

### Approximate Annual Metrics

Electric Industry	<p><b>Total retail electric expenditures ≈ \$2.5B (IOUs, Coops, Munis)</b>          Westar 49%; KCP&amp;L 27%; Empire 1.1%; Sunflower 9.2%; Midwest 5.9%; MKEC 7.3%</p> <p>KS avg bill ≈ \$105 (residential bill)          US avg bill ≈ \$110 (5% higher than KS)</p>
KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Regulate market entry &amp; exit in distribution and transmission (but <u>not</u> generation)</li> <li>2. Set rates, returns on IOU offerings (not coops, munis)</li> <li>3. Regulate transmission line siting</li> <li>4. Review decommissioning cost projections for Wolf Creek</li> <li>5. Participate in Southwest Power Pool (SPP)</li> </ol>
Activities	116 new dockets; 20 tariff filings; 52 certificate area swaps
Environmental Issues	CSAPR; Regional Haze Rule; MACT; Water discharge; Ash disposal; nuclear waste disposal; Greenhouse gases

## KCC ENERGY DIVISION METRICS

### Approximate Annual Metrics

KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Administers energy efficiency programs and grant funding</li> <li>2. Promotes public education through outreach programs</li> <li>3. Provide program management for alternative energy and energy efficiency</li> </ol>
Activities	<ul style="list-style-type: none"> <li>• Efficiency Kansas loan program (transitioned to private financier for improvement loans, focusing on small business lighting projects)</li> <li>• Facility Conservation Improvement Program (provides facility improvements and allows access to favorable financing) (to date –\$278M in construction; \$20M annual energy savings; 3,032 job years)</li> <li>• Small Business Renewable Energy Program. Will improve 6 small business facilities in Rural Opportunity Zones in FY 2013.</li> </ul>

## CONSERVATION METRICS

### Approximate Annual Metrics

Oil & Gas Industry	63,000 producing oil wells (41.5 M bbls/yr @ \$88bbl = \$3.6B) 24,400 gas wells (311 Bcf/yr @ \$4/kcf ≈ \$1.2B) 2,400 active licensees; 9,400 inactive licensees 16,244 Class II wells
KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Develop and enforce operational rules regarding drilling.</li> <li>2. Plug abandoned wells and assign financial responsibility.</li> <li>3. Develop and enforce rules related to (a) underground gas storage (b) CO<sub>2</sub> sequestration and (c) compressed air energy storage.</li> <li>4. Investigate and direct spill clean-ups.</li> <li>5. Manage contamination cases</li> <li>6. Manage Class II UIC program</li> </ol>
Activities	28,929 filings processed*; 397 dockets opened; 88 penalty orders issued (*Includes: drilling permits, pit permits, well transfers, completion reports, plugging applications, plugging reports, and UIC applications)
Abandoned Wells	17,731 total – about 5,140 requiring action 400 to be plugged at state expense in 2013 at \$4,250 each 211 10-year Temporary Abandonment applications since 2008

## KCC TELECOM METRICS

### Approximate Annual Metrics

Telecom Industry	<ul style="list-style-type: none"> <li>• KS total intrastate retail expenditures ≈ \$1 B</li> <li>• Total Kansas expenditures approximately \$2.6 billion</li> <li>• Revenue breakdown: Wireless 59%; AT&amp;T &amp; CenturyLink 19%; IXCs 18%; rural telcos 3%; VoIP 2%</li> <li>• Landline customers ≈ 1.18 M</li> <li>• Wireless customers ≈ 2.6 M</li> <li>• Benchmark local rate for USF support (RLECs) <ul style="list-style-type: none"> <li>• \$16.25 (residential) \$19.25 (business)</li> </ul> </li> <li>• 93% of KS households have access to broadband (3-6Mb down, &gt;200Kb up) (excludes satellite/cellular broadband, see map)</li> <li>• Access is at or below parity</li> </ul>
KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Administer KUSF assessment-subsidy programs</li> <li>2. Oversee market entry/exit</li> <li>3. Tariff repository (practically, the KCC does not set rates)</li> <li>4. Handle interconnection disputes</li> </ol>
Telecom Subsidy Programs	Federal USF subsidy ≈ \$173M; KUSF ≈ \$62M 37 rural telcos (KUSF \$26.2M, 98k lines); AT&T & CenturyLink (KUSF \$16.3M, 475k lines); 9 other carriers (\$11.2M); KRIS & TAP (\$1.5M); Lifeline (\$4.7M; 48k lines; \$7.77/line/month) Kan-Ed (\$1.25M); Audit expenses (\$423k)

Kansas Corporation Commission

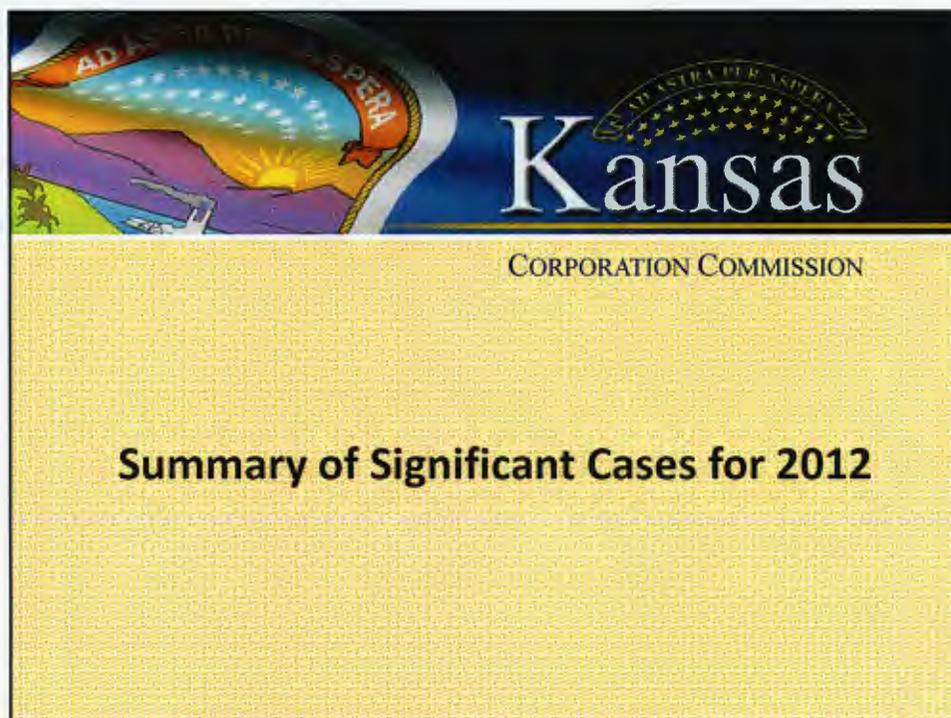
## KCC TELECOM METRICS

Approximate Metrics	
Active Telecom Companies	<ul style="list-style-type: none"> <li>• <u>Wireless</u>: 65 cell phone, radio &amp; paging carriers</li> <li>• <u>Landline</u>: 1 Electing Carrier; 38 Incumbent Local Exchange Carriers; 261 Interexchange Carriers; 119 Competitive Local Exchange Carriers; 44 VoIP carriers</li> </ul>
440 new telecom dockets Nov 2011 – Nov 2012 61% closed in year	<ul style="list-style-type: none"> <li>• 36% of all new KCC dockets were telecom dockets</li> <li>• 15% were KUSF related (ETC application, funding request, audit)</li> <li>• 16% were interconnection related (mostly modifications)                             <ul style="list-style-type: none"> <li>• Only 1 arbitration request</li> </ul> </li> <li>• 10% were purely ministerial (e.g., name change)                             <ul style="list-style-type: none"> <li>• Only 4 formal complaints processed</li> </ul> </li> </ul>
1,479 total telecom filings Nov 2011 – Nov 2012	<ul style="list-style-type: none"> <li>• 23% were applications (request for the KCC to do something)</li> <li>• 16% were interconnection filings (uncontested)</li> <li>• 19% were filings affecting tariffs (uncontested)</li> <li>• Lots of informational, "FYI-like" routine materials                             <ul style="list-style-type: none"> <li>• 8% were purely ministerial (e.g., entry of appearance)</li> <li>• 21% of filings were uncontested routine reports</li> </ul> </li> <li>• 45% of all telecom filings were KUSF related                             <ul style="list-style-type: none"> <li>• 100% of policy-related comments/testimony was KUSF related</li> <li>• 71 were ETC related filings; 25 reports by KUSF auditor</li> </ul> </li> </ul>

Kansas Corporation Commission

## TRANSPORTATION METRICS

Approximate Annual Metrics	
Transportation Industry	<ul style="list-style-type: none"> <li>• 7,421 Kansas based interstate motor carriers registered under federal UCR</li> <li>• 1,616 intrastate motor carriers registered w/KCC</li> <li>• 14,450 Kansas based motor carriers registered with a USDOT number</li> </ul>
KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Licensing, inspection and auditing to enforce compliance with motor carrier safety regulations</li> <li>2. Vehicle/Driver inspections and civil assessment program in partnership with KHP</li> <li>3. Training for motor carrier operators to understand and comply with commercial motor carrier rules and regulations</li> </ol>
Activities	<ul style="list-style-type: none"> <li>• 2,000 filings processed; 450 compliance reviews/audits</li> <li>• 6,000 maintenance violations; 2,200 records of duty violations (driving time restrictions); 1,468 driver qualification violations; 120 alcohol testing violations</li> <li>• 140 carriers assessed civil fines</li> </ul>



Kansas Corporation Commission

**SIGNIFICANT RATE CASES FOR 2012**

Docket	Request/Award Summary
KCP&L Rate Case Expenses	• \$9.1M requested; \$4.5M allowed (upheld on appeal)
Westar 12-WSEE-112-RTS	• \$90.8M requested increase; \$50M allowed
KCP&L 12-KCPE-764-RTS	• \$63.5 M requested increase; \$33.2M allowed
Kansas Gas Service 12-KGSG-835-RTS	• \$50.7M requested increase; \$28M allowed
Atmos Energy 12-ATMG-564-RTS	• \$9.7M requested increase; \$2.8M allowed
Westar 12-WSEE-651-TAR	• Transmission delivery charge allocation methodology
Southern Pioneer Electric 12-MKEE-380-RTS	• \$8M requested increase; \$5M allowed
Kansas Power Pool 12-KPPE-630-MIS	• Initial \$432,438 request for inclusion in SPP Westar zone; \$350,243 approved
Suburban Water 12-SUBW-359-RTS	• \$296k increase requested; \$13k decrease ordered

## SIGNIFICANT OPEN ENERGY PROCEEDINGS

Docket	Focus
12-GIMX-337-GIV	• Determination of appropriate changes to the KCC's energy efficiency policies and practices
13-WCNE-204-GIE	• Investigation into costs, cost recovery and mechanics of storage of spent nuclear fuel in light of Yucca Mountain closure
13-GIME-391-GIE	• Quantification of renewable portfolio standards' impacts on rates (legislative mandate)
13-GIMX-150-GIV	• Monitoring of on-going environmental requirements of jurisdictional utilities and oil & gas operators
08-GIMX-1142-GIV	• Review of depreciation methods & policies
12-CONS-289-CMSC	• Determination of responsible party for abandoned wells when transfer of title is flawed

## SIGNIFICANT PIPELINE CASES FOR 2012

Docket	Description
12-GIMX-884-GIV	• Creation of Kansas Notification Center pursuant to KS Underground Utility Damage Prevention Act (KUUDPA)
12-KGSG-490-GIG	• Dec. 20 2011 Wichita incident (KGS) – open proceeding
12-GIMG-584-GIP	• Jan. 30, 2012 Topeka incident (KGS) – open proceeding
12-DPAX-563-SHO	• RD Johnson Excavating Co.(Lawrence) – 25k gal. diesel fuel spill; \$633k remediation costs; \$10k fine
12-DPAX-730-SHO	• Bob Bergkamp Construction, Inc. (Manhattan) 4,504 MCF of natural gas; \$29k in repair costs (\$3.5k fine)
13-DPAX-250-GIV	• July 2012 damage to Wichita water main and KGS gas lines (\$500k remediation costs; 660 customers) – open proceeding
15 penalty orders	• Penalty orders for violation of KUUDPA
ER12-2554 (FERC)	• Kinder-Morgan pipeline conversion affecting Midwest Energy & KGS – open proceeding
RM12-18 (FERC)	• Liquid pipeline general rulemaking focused on calculation of rate of return

## SIGNIFICANT CONSERVATION CASES FOR 2012

Docket	Description
Horizontal well applications	<ul style="list-style-type: none"> <li>Streamlined processing of applications for horizontal wells drilled into Mississippian formation (processing dropped from 35-40 days to 4 days)</li> </ul>
Drilling Waste	<ul style="list-style-type: none"> <li>Developed rules regarding disposal of drilling waste (pits vs. land spreading)</li> </ul>
12 Abandoned Well Plugging Orders	<ul style="list-style-type: none"> <li>Abandoned wells plugged at state expense – 209 wells covered by these orders</li> </ul>
Routine filings	<ul style="list-style-type: none"> <li>About 900 filings processed; 255 docketed; 330 orders issued; 175 penalty or show cause orders</li> </ul>

## 2012 KUSF TELECOM PROCEEDINGS

Docket #	Issues
12-S&TT-234-KSF	<ul style="list-style-type: none"> <li>S&amp;T – \$1.2M in additional KUSF requested; \$382k reduction ordered</li> </ul>
12-GRHT-633-KSF	<ul style="list-style-type: none"> <li>Gorham Telephone -- \$1.1M in additional KUSF requested; \$565k increase allowed</li> </ul>
13-GIMT-157-CPL	<ul style="list-style-type: none"> <li>Compliance docket for annual audits of 3rd party KUSF administrator (GVNW) for 2009, 2010 &amp; 2011</li> </ul>
07-KRST-143-KSF	<ul style="list-style-type: none"> <li>Change in KRSI operational structure to minimize conflict of interest and cost-based contract for KRSI's provision of services via KTIA</li> </ul>
16 open KUSF dockets	<ul style="list-style-type: none"> <li>Current on-going audits of KUSF contributors</li> </ul>
ETC Applications	<ul style="list-style-type: none"> <li>To date, 25 competitive ETCs authorized; 18 ETC applications filed in 2012</li> </ul>

## SIGNIFICANT OPEN TELECOM PROCEEDINGS

Docket	Focus
12-LHPT-875-AUD 13-ZENT-065-AUD 13-CRKT-268-KSF 13-BGRT-413-KSF 13-MBIT-432-KSF 13-JBNT-437-KSF	<ul style="list-style-type: none"> <li>KUSF cases in progress:               <ul style="list-style-type: none"> <li>LaHarpe, Zenda, Craw-Kan, Big River, Madison, and JBN</li> </ul> </li> </ul>
11-GIMT-420-GIT	<ul style="list-style-type: none"> <li>Review of high cost model for price cap carriers and ETCs</li> </ul>
12-GIMT-170-GIT	<ul style="list-style-type: none"> <li>Investigation into the impacts of FCC USF and interconnection reforms on Kansas &amp; KUSF</li> </ul>
13-GIMT-260-GIT	<ul style="list-style-type: none"> <li>Investigation into primary line policies (i.e., should carriers be eligible to receive multiple high-cost KUSF payments)</li> </ul>

## OTHER SIGNIFICANT CASES FOR 2012

Cases	Issues
Appeals of Commission Orders	<ul style="list-style-type: none"> <li>Bartlett Grain – appeals from KCC orders are not timely until final order is issued</li> <li>KCP&amp;L – KCC determination of rate case expenses was upheld</li> <li>S&amp;T KUSF Audit – action in KUSF audit is not governed by the timelines/deadlines for a rate case</li> <li>AT&amp;T dispute about whether it is required to publish telephone directories</li> </ul>
Wolf Creek Decommissioning Costs 12-WCNE-136-GIE	<ul style="list-style-type: none"> <li>\$630M million &amp; 2.85% escalator <math>\approx</math> \$1.74B (2053); 47% recovered by KCP&amp;L; 47% recovered by Westar; 6% by KEPCo; but EXCLUDES costs of spent nuclear fuel disposal/storage</li> </ul>
12-MKEE-650-TAR	<ul style="list-style-type: none"> <li>Mid Kansas Electric application to develop formula-based transmission rates (granted)</li> </ul>
12-KGSG-721-TAR	<ul style="list-style-type: none"> <li>KGS – application to create infrastructure replacement surcharge separate from statutory Gas Safety Recovery Surcharge (GSRS) (denied)</li> </ul>

## PENALTY ORDERS & FINES

Industry	Orders w/fines or penalties	Total Fines or Penalties Assessed	Total Fines or Penalties Collected
Transportation	174	\$200,300	\$160,650
KHP Assessments	5,616	\$1,406,850	\$1,123,855
Oil & Gas	71	\$111,600	\$77,300
Telecom	18	\$9,650	\$9,050
Gas/Pipelines	9	\$8,500	\$8,500
Electric	0	\$0	\$0
Total w/o KHP	272	\$330,050	\$255,500
Total w/KHP	5,888	\$1,736,900	\$1,379,355

## 2012 ADMINISTRATIVE INITIATIVES

Project	Focus
e-filing	<ul style="list-style-type: none"> <li>Transitioning to e-filing and electronic processing (e.g., Commission review &amp; approval on-line) of all filings</li> </ul>
Transportation	<ul style="list-style-type: none"> <li>Streamlined processing of routine economic transportation orders in dockets associated with economic regulation (e.g., insurance, licensing) decreased processing time from 2-4 weeks to 1 day</li> </ul>
KOLAR	<ul style="list-style-type: none"> <li>Electronic processing of on-line oil &amp; gas applications and regulatory activities (mandatory Jan. 1, 2013); eliminated most paper forms</li> </ul>
Administrative Meetings	<ul style="list-style-type: none"> <li>Implementing administrative meetings with Commissioners with written updates by department heads</li> </ul>
Compliance	<ul style="list-style-type: none"> <li>Created compliance function and dockets to track compliance with Commission orders</li> </ul>
Performance Metrics	<ul style="list-style-type: none"> <li>Creating regular performance appraisal/review processes</li> </ul>
Docket Reviews & Advisory Updates	<ul style="list-style-type: none"> <li>Developed systematic method of tracking status of filings and keeping Commissioners apprised of significant orders &amp; filings</li> </ul>



Kansas Corporation Commission

### KANSAS ENERGY CHALLENGES

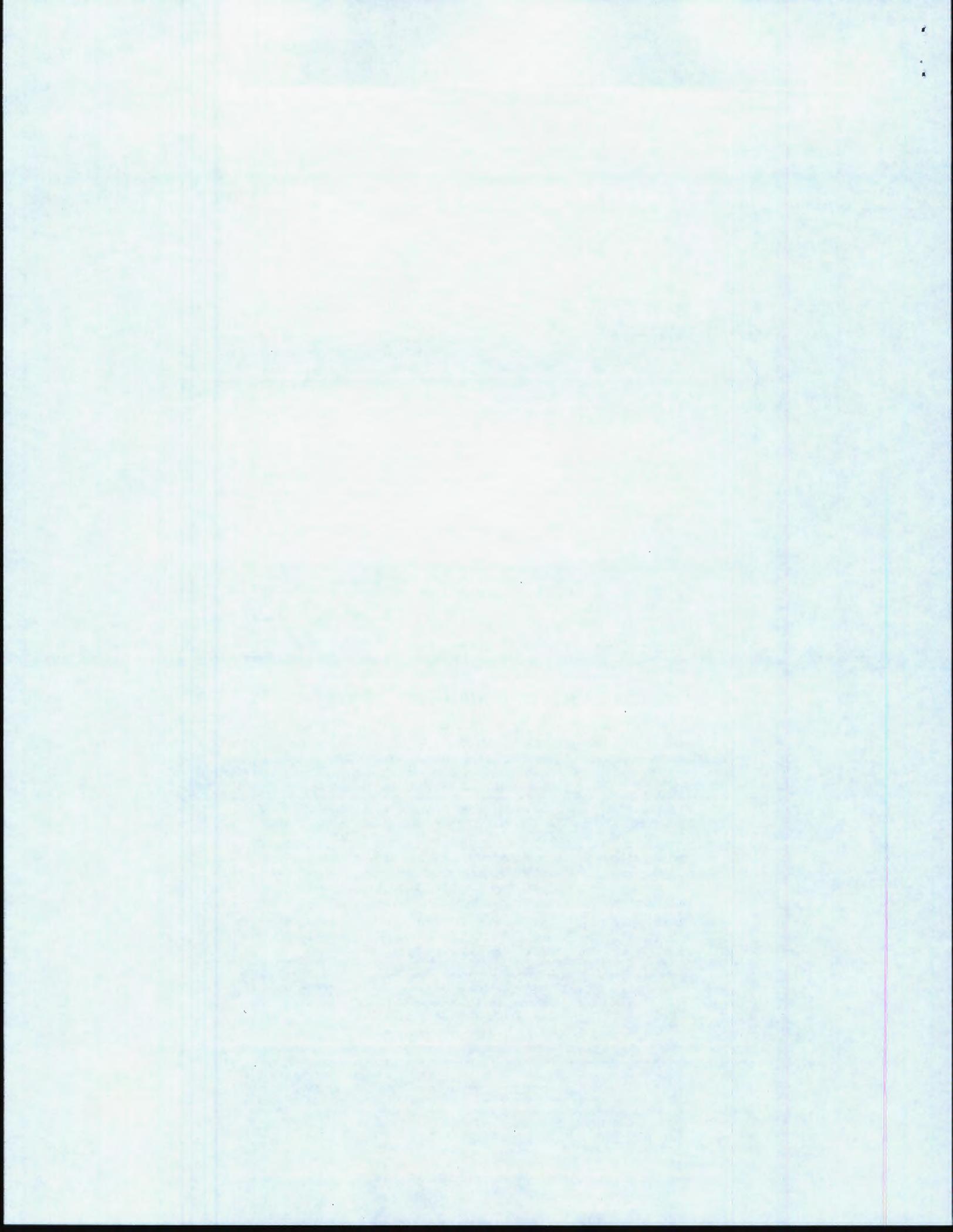
Issue	Focus
Environmental Compliance Costs	<ul style="list-style-type: none"> <li>About \$2 B in approved environmental compliance costs are working through electric rate cases</li> </ul>
MO "Confer" decision	<ul style="list-style-type: none"> <li>MO Supreme Court decision prohibiting PSC intervention in FERC proceedings based on interpretation of "confer" in MO statutes (KS has similar language); FERC filing anticipated</li> </ul>
Expected EPA NSPS Rules	<ul style="list-style-type: none"> <li>Expectation that EPA will extend New Source Performance Standards (NSPS) for CO<sub>2</sub> emissions to existing coal plants</li> </ul>
Natural Gas Price Collapse	<ul style="list-style-type: none"> <li>Increase in number of gas well shut-ins &amp; abandonments</li> <li>Off-system sales pit coal generation against natural gas (ironically raises electric rates by reducing off-system sales from coal plants)</li> </ul>
Wind Production Tax Credit	<ul style="list-style-type: none"> <li>Renewed in fiscal cliff negotiations. All projects that start construction in 2013 will qualify</li> </ul>
Private Interest in Renewable Energy	<ul style="list-style-type: none"> <li>Interest by large customers in securing energy from renewable sources and/or independence from reliance on vertically integrated utilities (i.e., interest in on-site generation)</li> </ul>
Spent Fuel Storage	<ul style="list-style-type: none"> <li>Costs and operational issues surrounding storage of spent nuclear fuel in light of Yucca Mountain closure</li> </ul>
Fracking	<ul style="list-style-type: none"> <li>EPA may seek to establish fracking standards or regulate drilling</li> </ul>

## KANSAS TELECOM CHALLENGES

Issue	Challenge
KUSF	<ul style="list-style-type: none"> <li>Administrative burden of dealing with KUSF (<i>i.e.</i>, spending significant public money to administer a subsidy program)</li> <li>Landline-centric subsidies in an increasingly wireless world</li> <li>Current estimate of impact of FCC reforms is approx \$16.7M reduction in KS carriers' revenues</li> <li>KS has one of the nation's largest state high cost funds (6%) and the nation's highest Lifeline discount (\$7.77/line/month on top of federal lifeline of \$9.25/month)</li> <li>KSA 66-2008(e) interpreted (<i>Bluestem v KCC</i>) to require KUSF funding based on embedded costs (not actual use or # customers)</li> <li>Federal law (254(f) – states cannot enact USF approaches inconsistent with federal programs</li> <li>66-2005(c)(1) requires recovery of any <u>interstate</u> access revenue losses through KUSF (legislative typo?)</li> </ul>
On-going KUSF cases	<ul style="list-style-type: none"> <li>2 more 30-day notices of KUSF applications at KCC (Madison &amp; JBN) in addition to 4 currently in progress</li> </ul>
Increased ETC applications	<ul style="list-style-type: none"> <li>Significant increase in # of carriers seeking ETC &amp; Lifeline classification to enable them to collect Lifeline money</li> </ul>

## ADMINISTRATIVE CHALLENGES

Issue	Challenge
Paper Processing	<ul style="list-style-type: none"> <li>Every filing w/KCC requires 7 or 9 paper copies</li> <li>Review and processing by agency is slow, manual and even routine matters are circulated to all three Commissioners for action</li> </ul>
No Delegation of Authority	<ul style="list-style-type: none"> <li>Processing of routine items (<i>e.g.</i>, \$100 trucking or conservation fines) should not require review and approval by 3 political appointees, but delegation of authority is legally complicated</li> </ul>
Restrictions on Consultation and Communications with Commission Staff	<ul style="list-style-type: none"> <li>Consultation with Staff in cases where Staff is a party-litigant is significantly restricted (<i>e.g.</i>, can't ask Staff for anything that is not already in the record, can't ask for analyses not in the record or just ask for substantive advice or analyses)</li> </ul>
Restrictions on Commissioner Communications	<ul style="list-style-type: none"> <li>Open meeting laws inhibit dialog between Commissioners on all matters affecting: (1) cases before the Commission; (2) forward-looking policy making; and (3) agency management</li> </ul>
Tenure & Turnover	<ul style="list-style-type: none"> <li>Average tenure of PUC Commissioner in US is 3 years so agency management changes tend toward haphazard/short-term focus and most Commissioners are constantly on a steep learning curve</li> <li>Staff career development &amp; increased wage opportunities are with industry, not in long-term public service</li> </ul>





**Kansas**  
CORPORATION COMMISSION

**Energy Utility Metrics and Issues**  
*Environmental Compliance , Economic Development & Aging Infrastructure*

Kansas Corporation Commission

## ELECTRICITY METRICS

Approximate Annual Metrics	
Electric Industry	<b>Total retail electric expenditures ≈ \$2.5B (IOUs, Coops, Munis)</b> Westar 49%; KCP&L 27%; Empire 1.1%; Sunflower 9.2%; Midwest 5.9%; MKEC 7.3% KS avg bill ≈ \$105 (residential bill) US avg bill ≈ \$110 (5% higher than KS)
KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Regulate market entry &amp; exit in distribution and transmission (but <u>not</u> generation)</li> <li>2. Set rates, returns on IOU offerings (not coops, munis)</li> <li>3. Regulate transmission line siting</li> <li>4. Review decommissioning cost projections for Wolf Creek</li> <li>5. Participate in Southwest Power Pool (SPP)</li> </ol>
Activities	116 new dockets; 20 tariff filings; 52 certificate area swaps
Environmental Issues	CSAPR; Regional Haze Rule; MACT; Water discharge; Ash disposal; nuclear waste disposal; Greenhouse gases

## KCC ENERGY DIVISION METRICS

### Approximate Annual Metrics

KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Administers energy efficiency programs and grant funding</li> <li>2. Promotes public education through outreach programs</li> <li>3. Provide program management for alternative energy and energy efficiency</li> </ol>
Activities	<ul style="list-style-type: none"> <li>• Efficiency Kansas loan program (transitioned to private financier for improvement loans, focusing on small business lighting projects)</li> <li>• Facility Conservation Improvement Program (provides facility improvements and allows access to favorable financing) (to date -\$278M in construction; \$20M annual energy savings; 3,032 job years)</li> <li>• Small Business Renewable Energy Program. Will improve 6 small business facilities in Rural Opportunity Zones in FY 2013.</li> </ul>

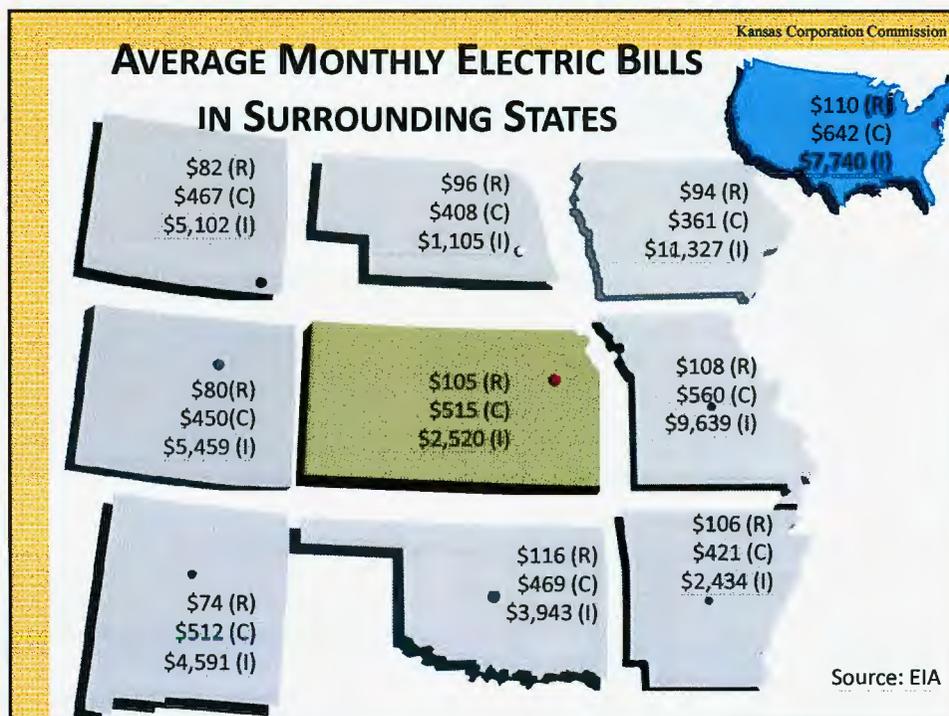
## KANSAS ENERGY CHALLENGES

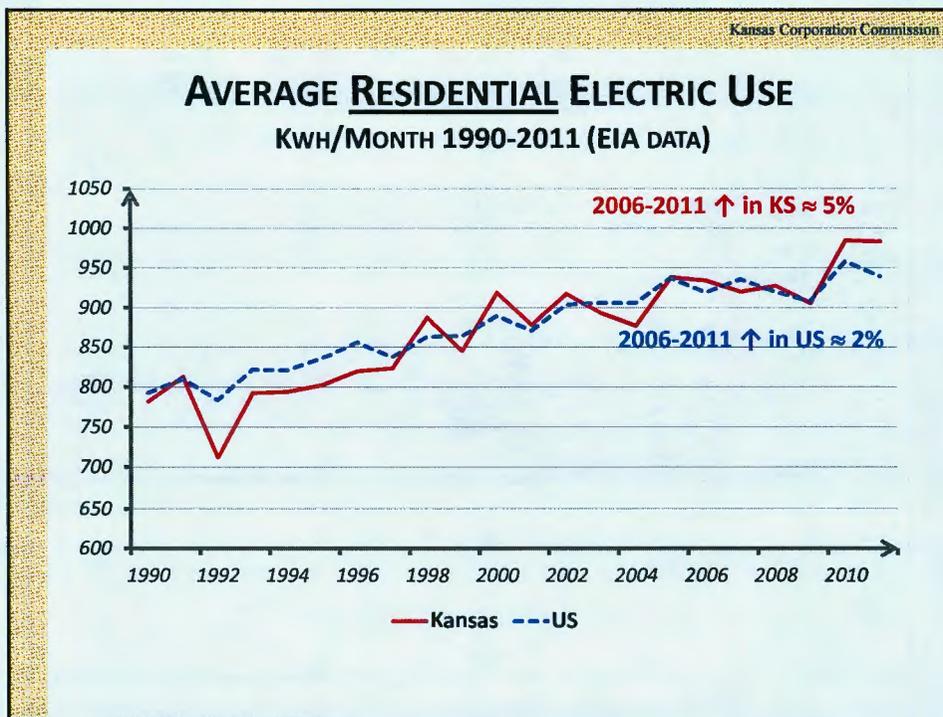
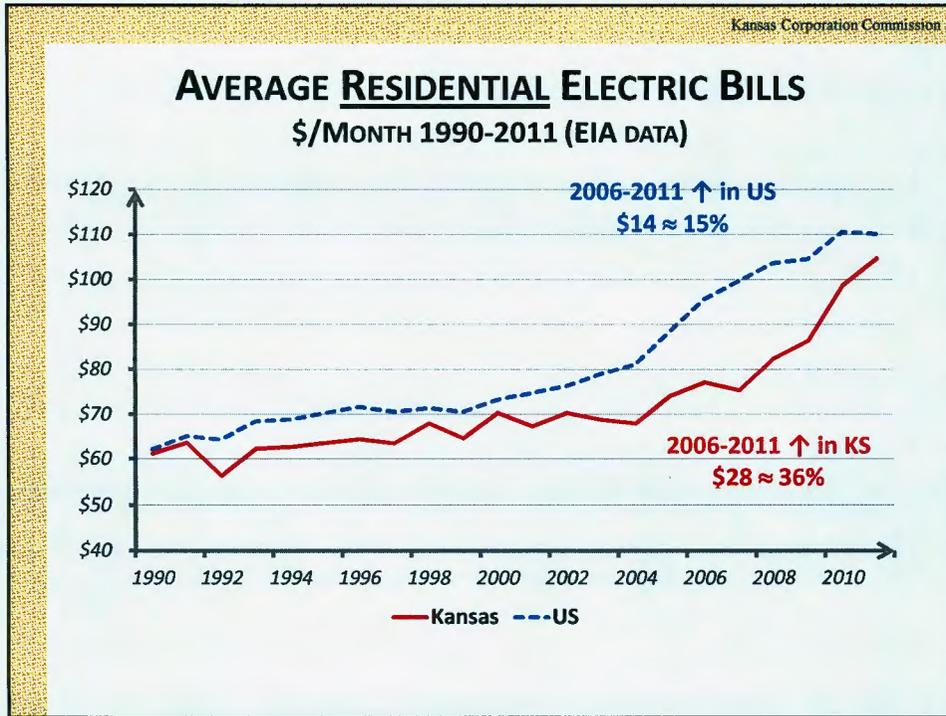
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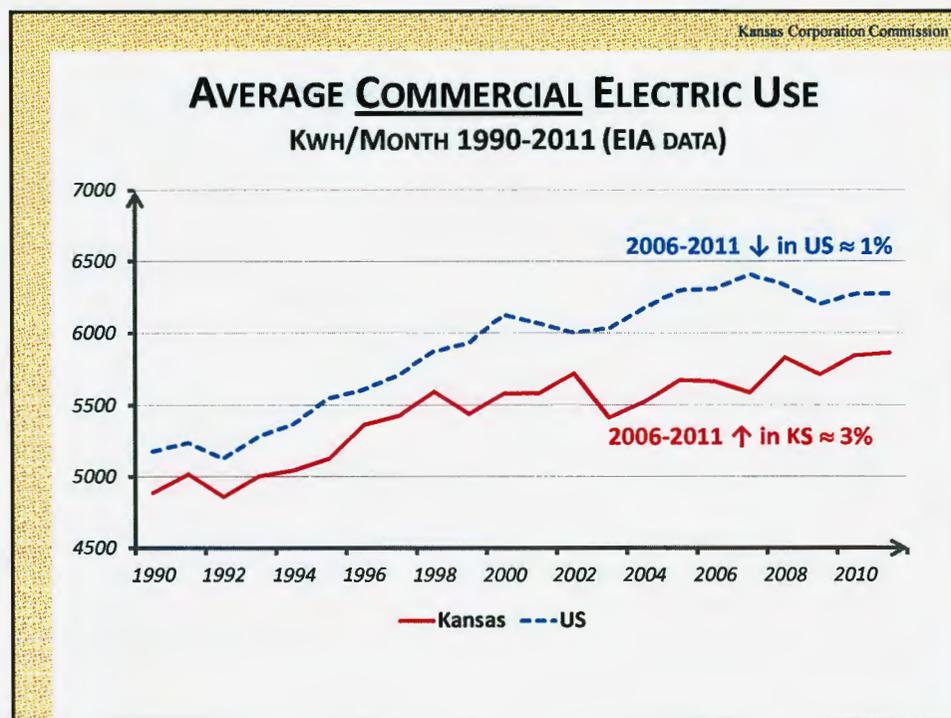
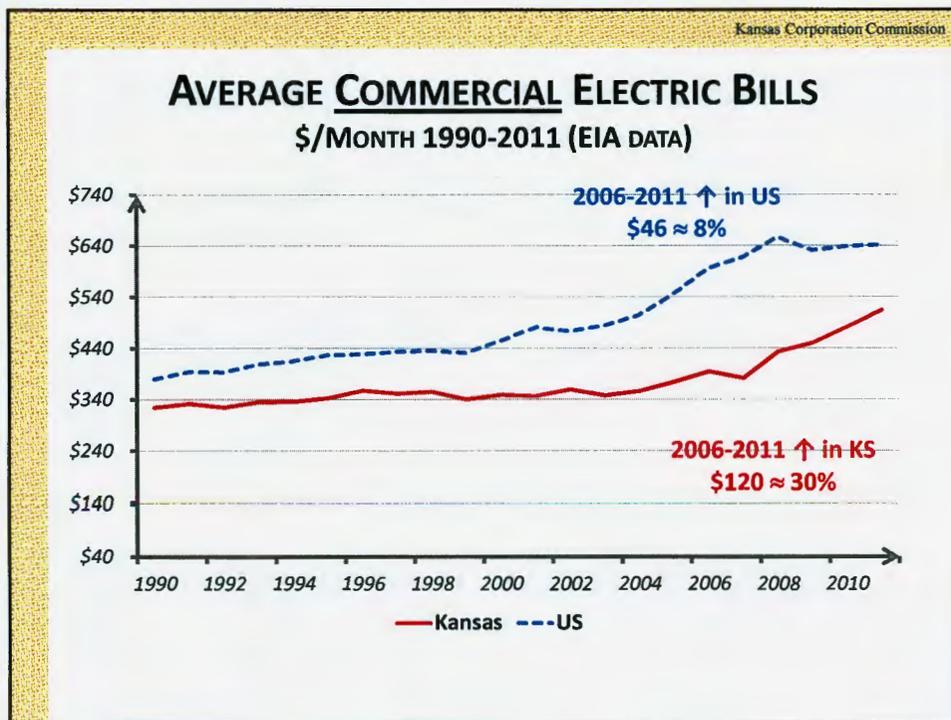
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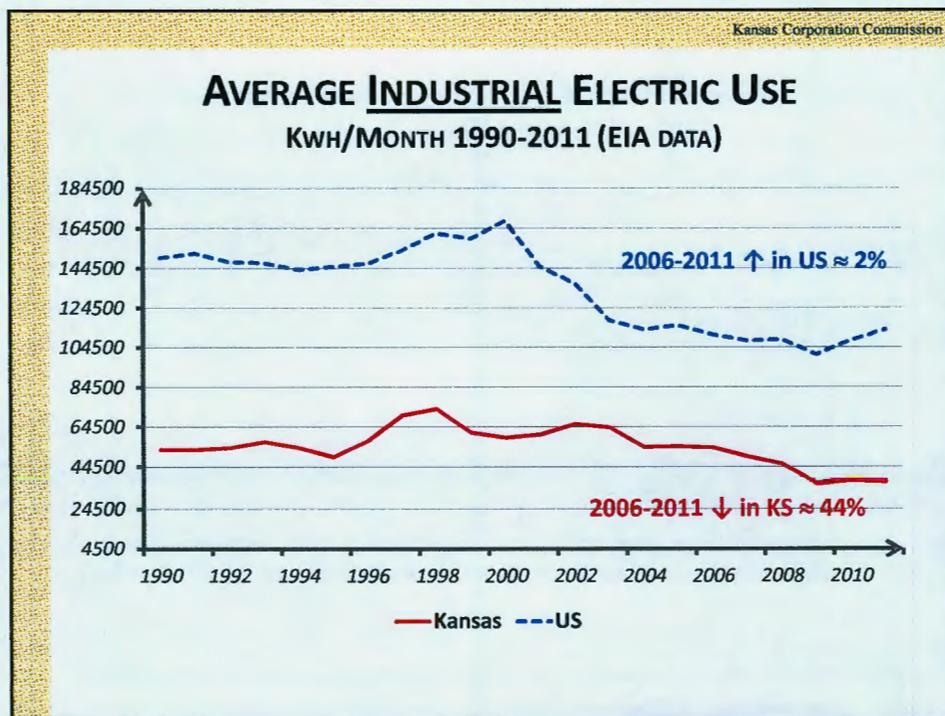
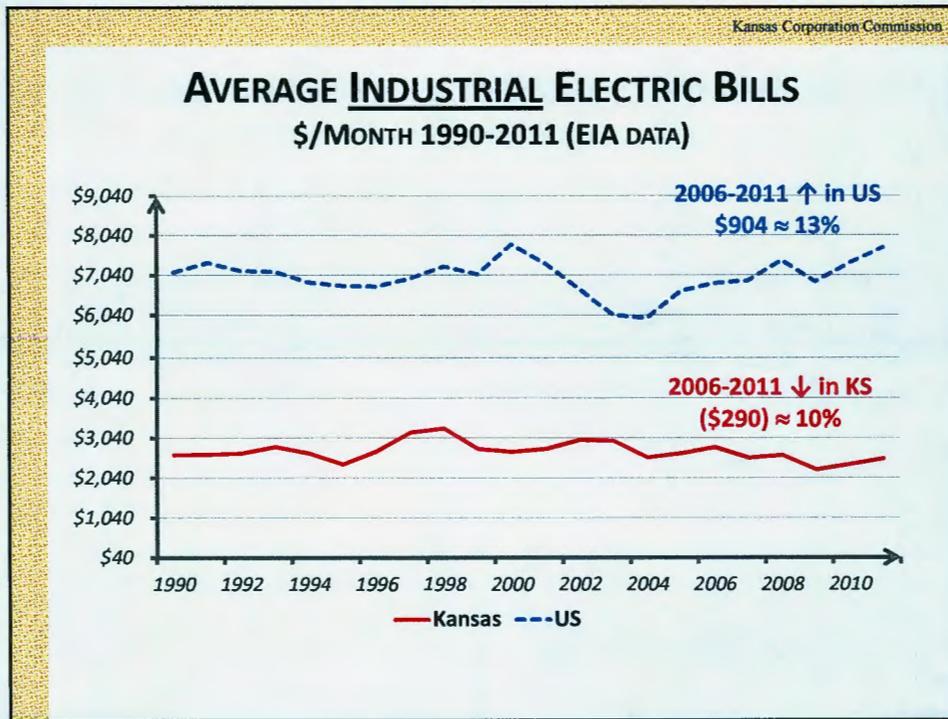
### KS ELECTRIC SALES STATISTICS CUSTOMERS, REVENUES, BILLS & PRICES

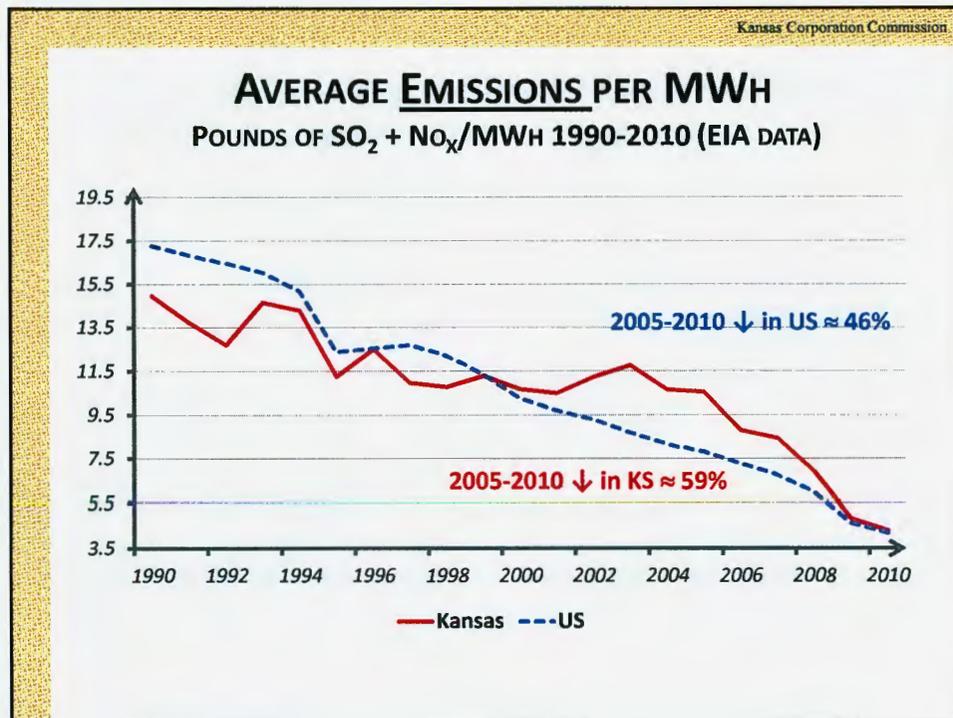
Entity Type	Residential	Commercial	Industrial
4 Investor Owned Utilities	821 thousand \$1.0 billion \$107/mo ≈ 10.4¢/kwh	111 thousand \$902 million \$678/mo ≈ 8.3¢/kwh	5,800 \$379 million \$5,390/mo ≈ 6.3¢/kwh
118 Municipal Utilities	199 thousand \$219 million \$92/mo ≈ 10.7¢/kwh	33 thousand \$196 million \$503/mo ≈ 9.4¢/kwh	2,200 \$178 million \$6,676/mo ≈ 6.3¢/kwh
29 Cooperative Utilities	196 thousand \$284 million \$121/mo ≈ 12.6¢/kwh	78 thousand \$270 million \$287/mo ≈ 10.4¢/kwh	15 thousand \$168 million \$883/mo ≈ 8.4¢/kwh
<b>Total State</b>	<b>1.2 million</b> <b>\$1.6 billion</b> <b>\$105/mo ≈ 10.65¢/kwh</b>	<b>222 thousand</b> <b>\$1.4 billion</b> <b>\$515/mo ≈ 8.8¢/kwh</b>	<b>24 thousand</b> <b>\$725 million</b> <b>\$2,520/mo ≈ 6.71¢/kwh</b>











Kansas Corporation Commission

### ESTIMATES OF MAJOR DRIVERS OF CHANGE IN RESIDENTIAL ELECTRIC PRICES (MY ESTIMATES)

Driver	Estimate	Interpretation
Fuel & Transmission	60% 10%	• About 60% of the costs of electric service are related to the cost of generation & 10% are transmission related
Elasticity	3 - 9% (R) 2 - 12% (I)	• A 10% increase in price causes a 2% to 9% decrease in residential volumes and a 2% to 12% decrease in industrial volumes
Income	2%	• Nationally, each 10% <u>increase</u> in consumer income is correlated with a 2% <u>increase</u> residential price
Scale	1%	• Nationally, each 10% <u>increase</u> in utility size is associated with a 1% <u>decrease</u> in residential price
Market Structure	14%	• Nationally, residential prices in publicly owned utilities are 14% <u>lower</u> than investor-owned utilities & coops, everything else (scale, fuel mix, etc) held constant
Renewables	1%	• Nationally, each 10% <u>increase</u> in renewables (wind, hydro, biomass, etc) in the generation fuel mix is associated with residential prices that are about 1% <u>lower</u>
Cross-Subsidies	0.6%	• Nationally, each 10% <u>increase</u> in commercial and industrial revenues is associated with a 0.6% <u>decrease</u> in residential prices

Kansas Corporation Commission

**RENEWABLE ENERGY AND ENERGY EFFICIENCY PROGRAMS**

Program	Description
Solar and Wind Manufacturing Incentive	KSA 70-50.136 (Expires 7-2013) Administered by KS Dept of Commerce Must create at least 200 new jobs within 5 years. Maximum loan of \$5 million
Renewable Energy Property Tax Exemption	KSA 79-201 Exempts renewable energy equipment from property taxes
HowSmart Energy Efficiency Finance Program	Midwest Energy low interest loan program for electric and gas appliances
Commercial Energy Efficiency Rebate Program	BPU incentives for commercial customers to install, or upgrade to, energy efficiency equipment in new and existing facilities
Energy Optimizer Programmable Thermostat Program	KCP&L program -- free Honeywell Programmable Thermostat worth \$300, plus free installation

Kansas Corporation Commission

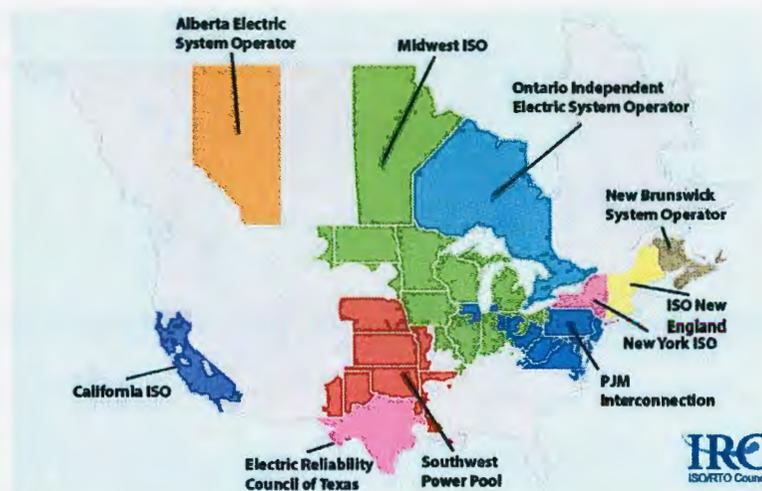
**RENEWABLE ENERGY AND ENERGY EFFICIENCY PROGRAMS**

Program	Description
Green Building Requirement	City of Greensburg program
Interconnection Guidelines & Net Metering	HB 2369 (2009 session) establishing interconnection guidelines and net metering for customer-owned generators with a rated capacity of 25 kilowatts (kW) or less for residential customers, 200 kW or less for non-residential customers and 1.5 megawatts (MW) for Cloud County and Dodge City community colleges. Net metering volumes count towards utility renewable portfolio standards targets.
Solar Easements	KSA 58-3801 allows contracting for solar easements
FCIP	Facility Conservation Improvement Program. More than \$278M in energy efficiency improvements saving \$20M annually.
REAP Loans & Grants	USDA program providing loans and grants to rural small businesses for financing energy efficiency and renewable projects
REAP/RES/EEI	USDA program providing grants to agriculture and rural businesses to perform energy audits, make energy efficiency improvements and install renewable energy systems.

## SOUTHWEST POWER POOL (SPP) FUNCTIONS

Function	Description
Transmission coordination, planning & cost sharing	<ul style="list-style-type: none"> <li>Administers tariffs for members' shared transmission facilities used throughout region</li> <li>Provides region-wide transmission planning, prioritizes project proposals</li> <li>Splits costs of transmission facilities between members &amp; jurisdictions</li> </ul>
Market Operations	<ul style="list-style-type: none"> <li>32 participants (405 generation assets) buy and sell wholesale electricity in real time (about \$1.28B in transactions)</li> <li>Plans for day-ahead power market allowing entities to bid to sell power into the grid (i.e., SPP determines what generating units should run the next day for maximum cost-effectiveness)</li> </ul>
Balancing & Reliability Operations	<ul style="list-style-type: none"> <li>Ensures that the amount of power sent into the grid is matched with the power demanded at the points of demand</li> <li>Monitor grid power flow to react to emergency situations</li> <li>Enforces compliance with federal &amp; regional reliability standards</li> </ul>

## SPP COVERAGE

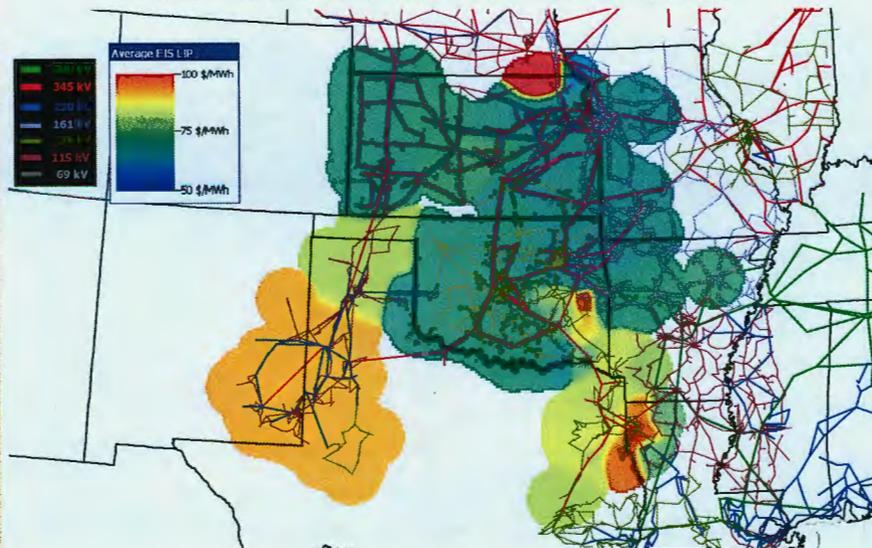


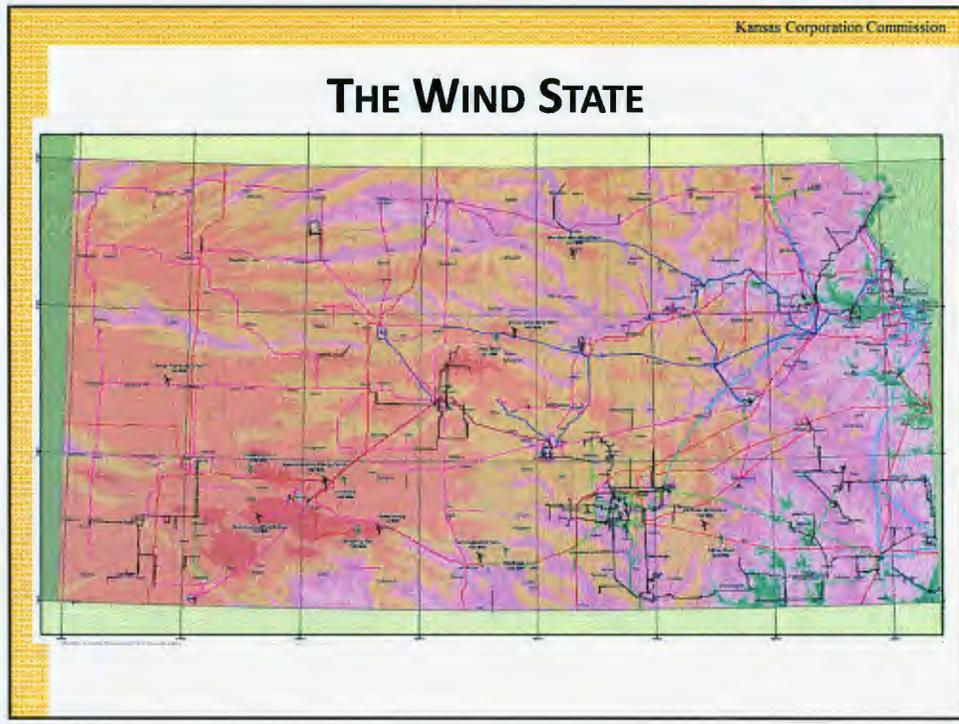
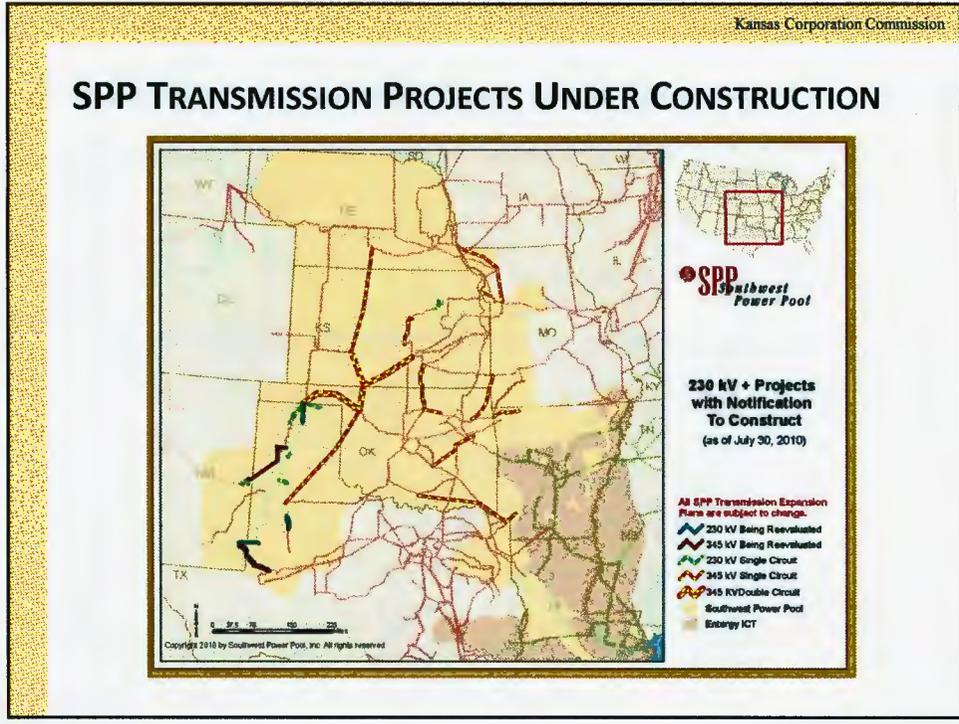
## HOW TRANSMISSION SPP MANAGED TRANSMISSION COSTS ARE ALLOCATED VIA HIGHWAY/BYWAY MECHANISM (AKA "POSTAGE STAMP")

Transmission Line Voltage	Costs Paid for by Entire SPP Region	Costs Paid for by Local Zone
300 kV and above	100%	0%
above 100 kV and below 300 kV	33%	67%
100 kV and below	0%	100%

Other allocation methods used by SPP include: (1) Reliability (Base Plan Funding); (2) Economic (Balanced Portfolio) and (3) Sponsored

## TRANSMISSION CONGESTION PREVENTS CHEAP KS WIND POWER FROM REACHING MARKETS





## WIND DEVELOPMENT

- Focus is on Economic Development
  - 2.6 GW of wind energy is in place or under development
  - 55% of wind energy is exported from Kansas
  - \$1.4B + in transmission projects are under construction (excludes private carriage projects)
- Provides hedge against federal anti-fossil fuel actions
- Net contributions to Kansas (*i.e.*, new money to Kansas)
  - Payments to landowners (wind towers + transmission lines)
  - Sales of exported power
  - Construction crews in Kansas
  - Power generation/maintenance operations

County-Level employment and income changes per MW of installed wind generation	
Employment	0.5 jobs (0.4% increase)
County Level Personal Income	\$11,000 (0.2% increase)

J. Brown, J. Pender, R. Wiser, E. Lantz, B. Hoen, (NREL & Lawrence Berkeley Nat'l Labs) *Ex post analysis of economic impacts from wind power development in U.S. counties Original Research Article, 34 ENERGY ECONOMICS 1743 (Nov. 2012)*

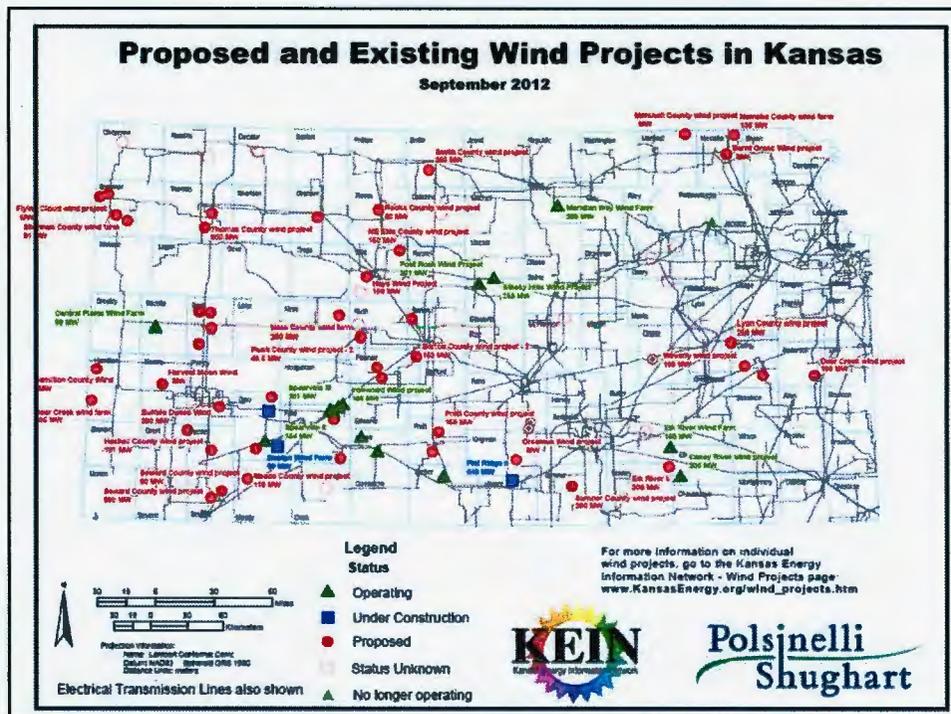
## WIND TRANSMISSION PROJECTS

Issue	Description	
Transmission Projects	Major Kansas transmission project owners (current value of transmission facilities)	Estimated cost of new transmission facilities
	ITC Great Plains	\$503 M
	KCP&L (\$30.4 M)	\$ 26 M
	Prairie Wind	\$224 M
	Mid-Kansas (\$16.9 M)	\$ 40 M
	Midwest (\$8.8 M)	\$ 8 M
	Sunflower (\$14.5 M)	\$ 17 M
	Westar (\$148 M)	\$569 M
	TOTAL	\$1.388 B

**Excludes:** (1) KS cost share of SPP transmission projects (939 projects which total \$7.1 B); and, (2) costs of private carriage transmission projects (BP, Clean Line)

# WIND FARMS

Issue	Description
Wind Farms in Commercial Operation Total ≈ 1.3 GW	<ul style="list-style-type: none"> <li>• Grey County (112MW)</li> <li>• Elk River (150MW)</li> <li>• Spearville (100MW)</li> <li>• Spearville II (48MW)</li> <li>• Smoky Hills 1 (101MW)</li> <li>• Smoky Hills 2 (148MW)</li> <li>• Cloud County (105MW)</li> <li>• Meridian Way Phase II+ (96MW)</li> <li>• Flat Ridge (100MW)</li> <li>• Central Plains (99MW)</li> <li>• Caney River (200MW)</li> <li>• Greensburg 12MW)</li> </ul>
Wind Farms Under Construction or in Development Total ≈ 1.2 GW	<ul style="list-style-type: none"> <li>• IronWood Phase I (168MW)</li> <li>• Post Rock (201MW)</li> <li>• Shooting Star (105MW)</li> <li>• Cimarron Bend I (165MW)</li> <li>• Cimarron Bend II (131MW)</li> <li>• Flat Ridge Phase II (419MW)</li> </ul>



## ENVIRONMENTAL COMPLIANCE

- Driven by federal (EPA) mandates, not state regulation
- 7 major areas -- \$2B+ investments underway
  - CSAPR focused on NO<sub>x</sub>, SO<sub>2</sub> reductions
    - Stay of EPA rule prevented rolling blackouts in KS
  - MATS (Mercury rule)
  - Regional Haze (Particulate reduction in national parks)
  - RICE rules (diesel generators used by munis)
  - 316(b) rule (water discharge)
  - NSPS for greenhouse gases (CO<sub>2</sub> standards)
  - Coal ash treatment
- Compliance costs = adverse impact on economic development

A 10% increase in electric rates in Kansas causes these macro-economic changes	
Employment	-0.22%
Wages	-0.63%
Investment	-0.18%
Disposable Income	-0.22%

D. Tuerck, P. Bachman, M. Head (Kansas Policy Institute), *The Economic Impact of the Kansas Renewable Portfolio Standard (2012)*

### Environmental Regulatory Challenges: 2012 and Beyond

Air	Climate	Water	Land & Natural Resources	Waste & Chemical Management
Utility MACT	NSPS- New & Modified Sources	316(b)	Transmission Siting and Permitting	Coal Ash
Interstate Transport (CAIR/CSAPR)	NSPS- Existing Sources	Effluent Guidelines Limitations	Avian Protection	PCBs in Electrical Equipment
Regional Haze/Visibility	BACT Permitting	Waters of the United States	Endangered Species	HazMat Transport
Multiple NAAQS	International Negotiations	NPDES Pesticide Permits	Vegetation Management	
New Source Review (NSR)		Waterbody-Specific Standards		

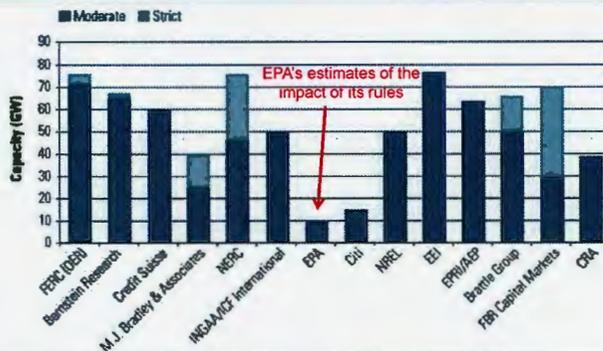
### CONFLUENCE OF SEVERAL ENVIRONMENTAL REQUIREMENTS

(THE TRAIN WRECK)

○ SIGNIFICANT TO KS

## FORECASTS OF COAL PLANT RETIREMENTS 2020

### Generation Decision-Making Under Uncertainty – Coal Plant Retirements



**Best Guesses:**

53 GW (15%) of existing coal-fired capacity will be retired by 2015 to comply with EPA rules

EPA compliance costs will run around \$200B

Infrastructure modernization needs will be about \$1.8T

Generation owners have already announced approximately 25 GW of coal plant retirements for the 2011-2020 period.

Source: Power Magazine, ENR.

## ENERGY EFFICIENCY

- Sprint (HQ in Overland Park, 7,000+ KS employees) was named #3 "greenest" US corporation by Newsweek
  - Modernization of Nextel network reduces cell tower energy use
    - Does not count in ACEEE national energy efficiency rankings
- Divergence of consumer/producer interests
  - Consumers: Pay more to consume less?
  - Producers: State should guarantee recovery of lost margins for reduced sales
- Gizmo/Subsidy (e.g., smart meters, recovery of lost margins) focus
- Kansas energy demand volumes affected by:
  - General economy
  - Installation of more efficient appliances
  - Price elasticity effects of environmental compliance driven rate increases

Customer Class	Elasticity Estimates	
	Short Run	Long Run
Residential	-0.3	-0.9
Commercial	-0.3	-1.1
Industrial	-0.2	-1.2

e.g., 50% increase in price will cause a 15% decrease in the volumes demanded by residential consumers in the short run. Best EE programs have savings of ≈ 1-2%

Source: EPRI, Price Elasticity of Demand for Electricity: A Primer and Synthesis, pg 20 (Jan 2008)

## NUCLEAR WASTE STORAGE

- Spent fuel disposal
  - Typical reactor generates 20 tons of waste annually
  - Typical reactor core contains 200-500 fuel assemblies (100 tons)
- Closure of Yucca Mountain shifts burden of spent fuel disposal from federal to state government
  - By 2025 all reactors will have some form of on-site dry cask storage as pool storage will be exhausted
    - What physical measures must states take to ensure safe, secure on-site storage?
  - 33 states have at least one independent spent fuel storage installation
  - Nuclear Waste Fund (0.1¢/kwh ≈ \$16B paid in; \$27B accumulated; \$750M paid in annually)
    - Will the federal government return/release those funds?
    - Will those funds be available for non-Yucca Mountain storage? Will they be enough?

## GAS/PIPELINE METRICS

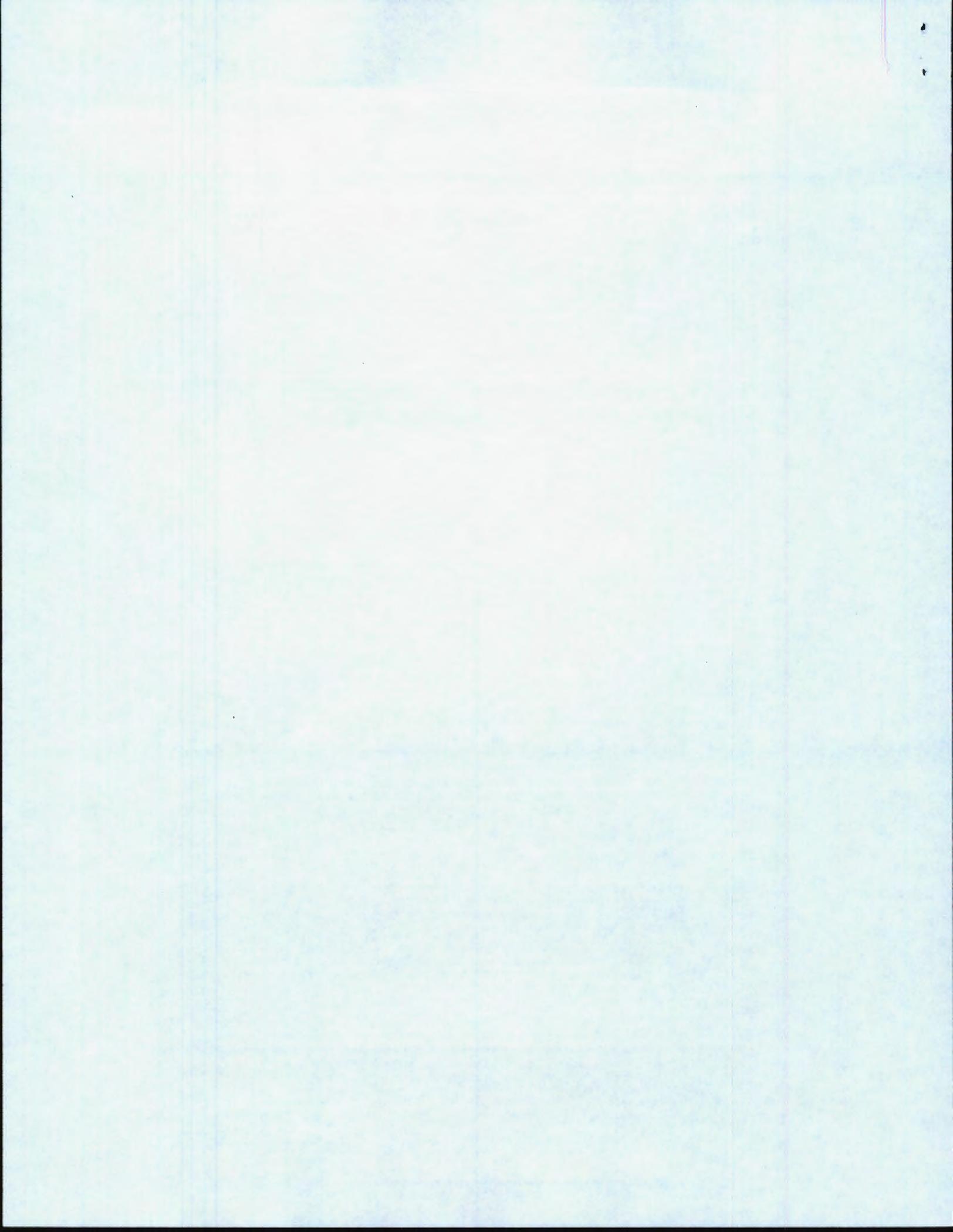
### Approximate Annual Metrics

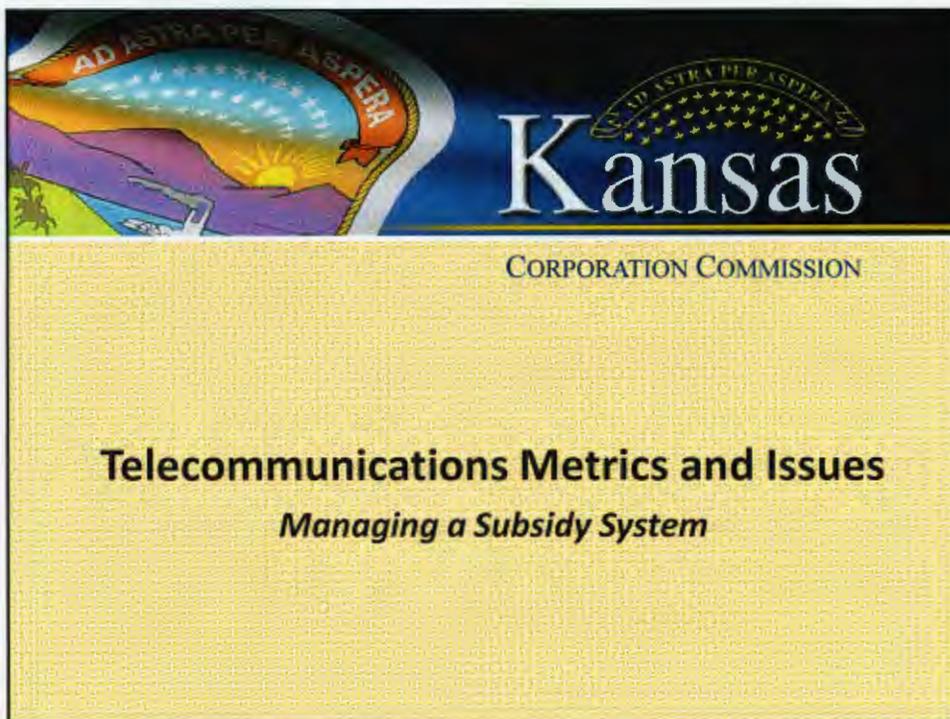
Gas Industry	Major local distributors (588 communities; 900k customers; 193 Bcf gas annually; \$1.35 B plant investment) -- KGS (74%), Black Hills (9.5%), Atmos (13.3%), Midwest (3.5%); 11 non-profits & co-ops; 58 municipalities; 15 master meters <ul style="list-style-type: none"> <li>• 38 transmission lines</li> <li>• 6 gathering lines</li> <li>• 24,300 miles of distribution, transmission, and gathering pipelines</li> <li>• 90% of pipeline is distribution pipe serving 939,000 consumers</li> </ul> KS avg bill ≈ \$92 (residential bill) US avg bill ≈ \$119 (30% higher than KS)
KCC Responsibilities	1. Regulate market entry & exit 2. Set rates, returns on IOU gas systems 3. Oversee pipeline safety for all systems
Activities	200 filings processed; 30 dockets opened; 700 person-hours doing on-site inspections

## GAS STATISTICS

### Approximate Annual Metrics

Segment	<u>Residential</u>	<u>Commercial</u>	<u>Industrial</u>
# of Customers	854 thousand	84 thousand	7 thousand
Volumes Demanded	73 Mcf	33 Mcf	1078 Mcf
Average Price/kcf	\$10.50/kcf	\$9.60/kcf	\$5.50/kcf





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## KCC TELECOM METRICS

Approximate Annual Metrics	
Telecom Industry	<ul style="list-style-type: none"> <li>• <b>KS total intrastate retail expenditures ≈ \$1 B</b></li> <li>• Total Kansas expenditures approximately \$2.6 billion                             <ul style="list-style-type: none"> <li>• Revenue breakdown: Wireless 59%; AT&amp;T &amp; CenturyLink 19%; IXCs 18%; rural telcos 3%; VoIP 2%</li> </ul> </li> <li>• Landline customers ≈ 1.18 M</li> <li>• Wireless customers ≈ 2.6 M</li> <li>• Benchmark local rate for USF support (RLECs)                             <ul style="list-style-type: none"> <li>• \$16.25 (residential) \$19.25 (business)</li> </ul> </li> <li>• 93% of KS households have <u>access</u> to broadband (3-6Mb down, &gt;200Kb up) (excludes satellite/cellular broadband, see map)</li> <li>• Access is at or below parity</li> </ul>
KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Administer KUSF assessment-subsidy programs</li> <li>2. Oversee market entry/exit</li> <li>3. Tariff repository (practically, the KCC does not set rates)</li> <li>4. Handle interconnection disputes</li> </ol>
Telecom Subsidy Programs	<p>Federal USF subsidy ≈ \$173M; KUSF ≈ \$62M</p> <p>37 rural telcos (KUSF \$26.2M, 98k lines); AT&amp;T &amp; CenturyLink (KUSF \$16.3M, 475k lines); 9 other carriers (\$11.2M); KRSI &amp; TAP (\$1.5M); Lifeline (\$4.7M; 48k lines; \$7.77/line/month)</p> <p>Kan-Ed (\$1.25M); Audit expenses (\$423k)</p>

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## KCC TELECOM METRICS

Approximate Metrics	
Active Telecom Companies	<ul style="list-style-type: none"> <li>• <b>Wireless:</b> 65 cell phone, radio &amp; paging carriers</li> <li>• <b>Landline:</b> 1 Electing Carrier; 38 Incumbent Local Exchange Carriers; 261 Interexchange Carriers; 119 Competitive Local Exchange Carriers; 44 VoIP carriers</li> </ul>
440 new telecom dockets Nov 2011 – Nov 2012	<ul style="list-style-type: none"> <li>• 36% of all new KCC dockets were telecom dockets</li> <li>• 15% were KUSF related (ETC application, funding request, audit)</li> <li>• 16% were interconnection related (mostly modifications)                             <ul style="list-style-type: none"> <li>• Only 1 arbitration request</li> </ul> </li> </ul>
61% closed in year	<ul style="list-style-type: none"> <li>• 10% were purely ministerial (<i>e.g.</i>, name change)                             <ul style="list-style-type: none"> <li>• Only 4 formal complaints processed</li> </ul> </li> </ul>
1,479 total telecom filings Nov 2011 – Nov 2012	<ul style="list-style-type: none"> <li>• 23% were applications (request for the KCC to do something)</li> <li>• 16% were interconnection filings (uncontested)</li> <li>• 19% were filings affecting tariffs (uncontested)</li> <li>• Lots of informational, "FYI-like" routine materials                             <ul style="list-style-type: none"> <li>• 8% were purely ministerial (<i>e.g.</i>, entry of appearance)</li> <li>• 21% of filings were uncontested routine reports</li> </ul> </li> <li>• 45% of all telecom filings were KUSF related                             <ul style="list-style-type: none"> <li>• 100% of policy-related comments/testimony was KUSF related</li> <li>• 71 were ETC related filings; 25 reports by KUSF auditor</li> </ul> </li> </ul>

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## 2012 KUSF TELECOM PROCEEDINGS

Docket #	Issues
12-S&TT-234-KSF	<ul style="list-style-type: none"> <li>• S&amp;T -- \$1.2M in additional KUSF requested; \$382k reduction ordered</li> </ul>
12-GRHT-633-KSF	<ul style="list-style-type: none"> <li>• Gorham Telephone -- \$1.1M in additional KUSF requested; \$565k increase allowed</li> </ul>
13-GIMT-157-CPL	<ul style="list-style-type: none"> <li>• Compliance docket for annual audits of 3rd party KUSF administrator (GVNW) for 2009, 2010 &amp; 2011</li> </ul>
07-KRST-143-KSF	<ul style="list-style-type: none"> <li>• Change in KRSI operational structure to minimize conflict of interest and cost-based contract for KRSI's provision of services via KTIA</li> </ul>
16 open KUSF dockets	<ul style="list-style-type: none"> <li>• Current on-going audits of KUSF contributors</li> </ul>
ETC Applications	<ul style="list-style-type: none"> <li>• To date, 25 competitive ETCs authorized; 18 ETC applications filed in 2012</li> </ul>

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### SIGNIFICANT OPEN TELECOM PROCEEDINGS

Docket	Focus
12-LHPT-875-AUD 13-ZENT-065-AUD 13-CRKT-268-KSF 13-BGRT-413-KSF 13-MBIT-432-KSF 13-JBNT-437-KSF	<ul style="list-style-type: none"> <li>KUSF cases in progress:                             <ul style="list-style-type: none"> <li>LaHarpe, Zenda, Craw-Kan, Big River, Madison, and JBN</li> </ul> </li> </ul>
11-GIMT-420-GIT	<ul style="list-style-type: none"> <li>Review of high cost model for price cap carriers and ETCs</li> </ul>
12-GIMT-170-GIT	<ul style="list-style-type: none"> <li>Investigation into the impacts of FCC USF and interconnection reforms on Kansas &amp; KUSF</li> </ul>
13-GIMT-260-GIT	<ul style="list-style-type: none"> <li>Investigation into primary line policies (i.e., should carriers be eligible to receive multiple high-cost KUSF payments)</li> </ul>

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### KANSAS TELECOM CHALLENGES

Issue	Challenge
KUSF	<ul style="list-style-type: none"> <li>Administrative burden of dealing with KUSF (i.e., spending significant public money to administer a subsidy program)</li> <li>Landline-centric subsidies in an increasingly wireless world</li> <li>Current estimate of impact of FCC reforms is approx \$16.7M reduction in KS carriers' revenues</li> <li>KS has one of the nation's largest state high cost funds (6%) and the nation's highest Lifeline discount (\$7.77/line/month on top of federal lifeline of \$9.25/month)</li> <li>KSA 66-2008(e) interpreted (<i>Bluestem v KCC</i>) to require KUSF funding based on embedded costs (not actual use or # customers)</li> <li>Federal law (254(f) – states cannot enact USF approaches inconsistent with federal programs</li> <li>66-2005(c)(1) requires recovery of any <u>interstate</u> access revenue losses through KUSF (legislative typo?)</li> </ul>
On-going KUSF cases	<ul style="list-style-type: none"> <li>2 more 30-day notices of KUSF applications at KCC (Madison &amp; JBN) in addition to 4 currently in progress</li> </ul>
Increased ETC applications	<ul style="list-style-type: none"> <li>Significant increase in # of carriers seeking ETC &amp; Lifeline classification to enable them to collect Lifeline money</li> </ul>

## HIGHLIGHTS OF FCC'S USF, INTERCONNECTION AND LIFELINE REFORMS

Issue	FCC Action/Order
Access Parity	<ul style="list-style-type: none"> <li>Requiring carriers to gradually reduce intercarrier compensation charges to zero.</li> </ul>
Universal Service	<ul style="list-style-type: none"> <li>6-year transition to eliminate federal USF high cost support (currently about \$4.5 billion) and replace it with Connect America Fund (CAF)</li> <li>Eliminated federal USF in areas where there is an unsubsidized competitor</li> <li>Limited total federal support to \$250/month/line and reduced federal support of unreasonably low local rates</li> <li>New calculations and limits on excessive corporate/overhead expenses</li> <li>Frozen high cost support for price cap carriers</li> <li>Change in safety net additive</li> <li>Change in LSS recoverable in interstate rates</li> </ul>
Lifeline	<ul style="list-style-type: none"> <li>Tightened rules to reduce waste, fraud and abuse of program</li> <li>Creating Lifeline Accountability Database to prevent duplicative payments and an Eligibility Database to verify program-based eligibility for Lifeline</li> </ul>
Impact on Kansas	<ul style="list-style-type: none"> <li>For 2013, KS rural LECs' federal USF will decline about \$17.5 M (3 companies account for 62% of this figure)</li> <li>Other FCC rule changes will increase rural LEC revenues by about \$790,000.</li> </ul>

## TYPES OF STATE UNIVERSAL SERVICE FUNDS

Fund Type	# of State Funds	Included in KUSF?
High-cost funds to subsidize service in rural areas	21	Yes
Subsidies to replace revenues lost due to intrastate access reforms – currently to match parity	8	Yes
Lifeline funds to subsidize monthly bills of low income consumers	23	Yes
Linkup funds to subsidize initial subscription	6	No
Relay Service to subsidize provision of relay service to deaf/hard of hearing individuals	33	Yes
Schools and Libraries subsidies	6	Yes
Broadband subsidies	4	No
Telecommunications Access Program (TAP)	19	Yes

Source: NRRRI, State USF Survey 2012, pg 4 (July 21, 2012)

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### COMPARISON OF STATE HIGH-COST & ACCESS REFORM PROGRAMS

State	State Funds	Federal Support	Federal Support/line	# Carriers w/State Support	State Assessment Rate % (Class)	Contributors
Kansas	\$54.1M	\$195M	\$147	41	6.13% (1)	(1) All telecom - ILEC, CLEC, IXC, VoIP, wireless
S. Carolina	\$67.6M	\$118M	\$70	25	2.49% + \$.063/MOU, \$.15/line for TAP/Relay(1)	(2) All landline - ILEC, CLEC, IXC & VoIP (excludes wireless)
California	\$58.5M	\$91M	\$6	13	2.58% (1)	(3) Local & long distance - ILEC, CLEC & IXCs (excludes wireless & VoIP)
Colorado	\$56.0M	\$76M	\$37	13	2.9% + \$.27/line(1)	
Nebraska	\$42.5M	\$89M	\$92	30	6.95% + \$.05 Relay(1)	(4) ILEC, CLEC, IXCs & wireless (excludes VoIP)
Oregon	\$40.0M	\$75M	\$43	26	8.5% (1)	
Oklahoma	\$37.0M	\$149M	\$87		3.14% (1) + 0.3-0.4¢/min Relay (5)	(5) Long distance only IXCs only
Pennsylvania	\$32.1M	\$69M	\$11	32	1.26% (3)	Sources: (1) NRRI, State USF Survey 2012 (July 21, 2012); (2) FCC (2010 data).
Georgia	\$26.5M	\$116M	\$30	32	1.4% (3)	
New Mexico	\$24.0M	\$82M	\$90	17	3.3% (1)	
Arkansas	\$22.0M	\$105M	\$80	25	2% (1)	
Michigan	\$17.5M	\$50M	\$54	36	0.62% (4)	
Indiana	\$11.8M	\$79M	\$74	37	0.52% (4)	
Illinois	\$10.0M	\$72M	\$68	35	0.48% + \$.06/line Relay(3)	
Texas	???	\$247M	\$101	87	4.3% (1)	
All Others	\$33.4M	\$2.5B	\$34		Other states with state funds include: AK, AZ, LA, NY, WI, ME, ID, WY, UT, WA)	

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### KUSF SUPPORT PAYMENTS BY COMPANY

#### PART 1

Company	2012 Support	1997-todate	Last Audit
Bluestem	--	\$1.2M	2003
Blue Valley	\$774k	\$11.9M	2009
Columbus	\$18k	\$761k	2008
Council Grove	\$1M	\$9.9M	2004
Craw Kan	\$848k	\$21.5M	2002 - new audit in progress
Cunningham	\$903k	\$9.8M	2012
Elkhart	\$35k	\$3.1M	2006
FairPoint MO	-	0	
Golden Belt	\$706k	\$9.7M	2010
Gorham	\$274k	\$1.9M	2012
Haviland	-	\$11.1M	2010
H&B	\$715k	\$10.4M	2006
Home	\$623k	\$11.1M	2004

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**KUSF SUPPORT PAYMENTS BY COMPANY****PART 2**

Company	2012 Support	1997-todate	Last Audit
JBN	\$179k (seeks +add'l \$865k)	\$6.7M	2003 – new audit In progress
KanOkla	\$750k	\$12.8M	2005
LaHarpe	\$149k	\$2.4M	In progress
Madison	\$244k (seeks +\$219k)	\$4.9M	2007 – new audit in progress
MoKan Dial	-	\$3.5M	2004
Moundridge	\$283k	\$6.1M	2008
Mutual	\$235k	\$2.0M	2009
Peoples	\$169k	\$4.0M	2008
Pioneer	\$3.8M	\$37.7M	2011
Rainbow	\$199k	\$4.2M	2011
Rural	\$3.4M	\$63.7M	2002
S&A	\$371k	\$7.8M	2003
S&T	\$702k	\$18.1M	2012

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**KUSF SUPPORT PAYMENTS BY COMPANY****PART 3**

Company	2012 Support	1997-todate	Last Audit
South Central	\$275k	\$7.7M	2006
Southern Kansas	\$1.3M	\$22.3M	2002
SWBT dba AT&T	\$5.9M	\$289.1M	2000
Sunflower	-	\$6.7M	2003
Total	\$257k	\$5.3M	2005
Tricounty	\$1.4M	\$15.9M	2005
Twin Valley	\$3.8M	\$33.2M	2009
United Tele. Assn	\$391k	\$6.6M	2011
United/CenturyLnk	\$13.3M	\$193.8M	2000
Wamego	\$50k	\$3.9M	2006
Wheat State	\$689k	\$13.2M	2003
Wilson	\$787k	\$14.6M	2002
Zenda	\$94k	\$1.7M	In progress

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## KUSF SUPPORT PAYMENTS BY COMPANY

### PART 4

Company	2012 Support	1997-to-date	Last Audit
Epic Touch	\$95k	\$501k	
H&B Cable	\$26k	\$174k	
Nex-Tech, Inc	\$44k	\$330k	
Nex-Tech Wireless	\$6.8M	\$25.8M	
Sage Telecom	\$61k	\$416k	
United Wireless	\$1.5M	\$4.9M	
Companies No Longer Oper.		\$1.6M	
<b>Total Paid to Carriers</b>	<b>\$53.2M</b>	<b>\$923.9M</b>	<b>N/A</b>
KRSI /TAP	\$1.5M (budgeted)		
Lifeline (many carriers)	\$3.0M		
Kan-Ed (libraries & schools)	\$6M	\$88.8M	Transitioning to commercial broadband via HB 2390
GVNW – KUSF Administrator (Admin. Only)	\$190k		Audited for 2009, 10 & 11

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## KUSF STATUTORY FUNDING MECHANISMS

Issue	FCC Action/Order
66-2005(c) (1) Inter/Intrastate parity	<ul style="list-style-type: none"> <li>Section (c)(1) states "Any reduction of a rural telephone company's cost recovery due to reduction of its interstate access charges shall be recovered from the KUSF"</li> </ul>
66-2008(c) KCC Review	<ul style="list-style-type: none"> <li>KCC may modify KUSF support according to the costs of carriers to provide local service</li> </ul>
66-2008(d) & (f) Supplemental Funding	<ul style="list-style-type: none"> <li>Carrier may request supplemental KUSF support based on a percentage increase in access lines</li> <li>KCC may authorize additional supplemental funding based on a general rate case filing</li> </ul>
66-2008(e) Embedded Costs	<ul style="list-style-type: none"> <li>Carriers electing to be regulated under rate of return regulation shall receive support based their "embedded costs, revenue requirements, investments and expenses"</li> </ul>

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## WHO CONTRIBUTES TO THE KUSF?

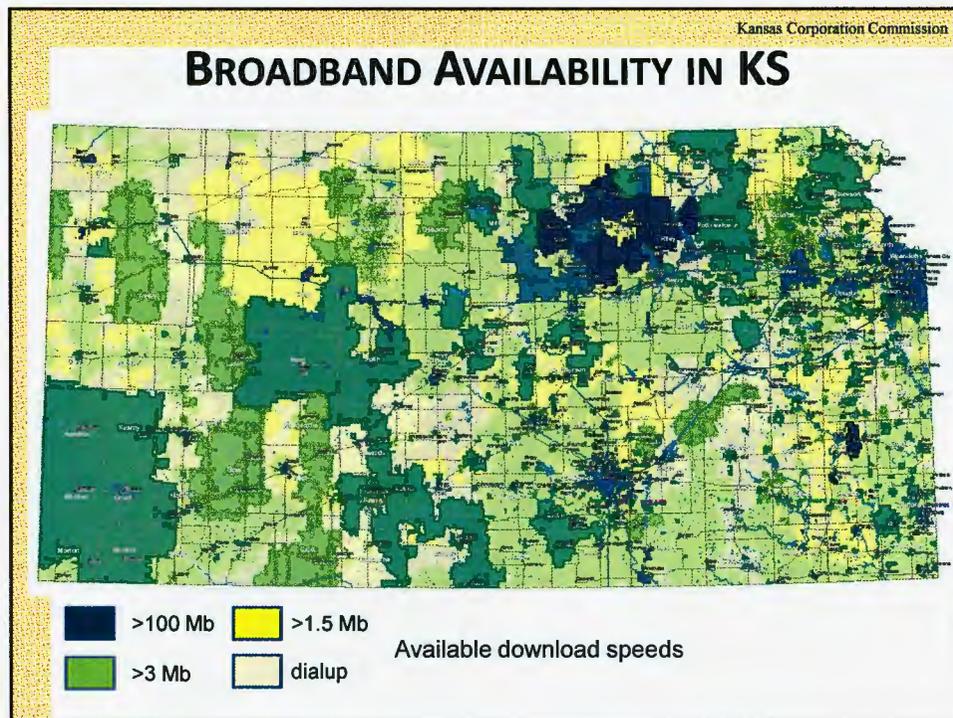
Carrier	Contribution Details
All Telecommunications Carriers	<ul style="list-style-type: none"> <li>6.13% of intrastate revenues – assessment reset every year based on changes in costs/demands of recipients\</li> <li>Carriers may collect KUSF payments from customers (and generally do)</li> </ul>
Wireless Carriers	<ul style="list-style-type: none"> <li>Assessment based on 62.9% of total revenues ( FCC Safe Harbor)</li> </ul>
VoIP Carriers	<ul style="list-style-type: none"> <li>Assessment based on 35.1% of total revenues (FCC Safe Harbor)</li> </ul>

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## BROADBAND ACCESS COMPARISON (4MB DOWN/1MB UP)

State	Pop./ % Rural	Pop. w/o access % Urban/% Rural	USF
United States	315.9M / 19%	2%/24%	\$4.5B (16.7%)
Kansas	2.9M / 26%	1%/27%	Yes (6%)
Missouri	6M / 30%	0.6%/24%	No
Arkansas	2.9M / 44%	2%/29%	Yes (2%)
Oklahoma	3.8M / 34%	3%/43%	Yes (3% +c/min)
New Mexico	2.1M / 22%	5%/47%	Yes (3.3%)
Colorado	5.1M / 14%	1%/25%	Yes (2.9%)
Wyoming	0.6M / 35%	1%/35%	Yes (1.2%)
Nebraska	1.8M / 27%	2%/33%	Yes (6.95%)
Iowa	3.1M / 36%	0.7%/19%	No

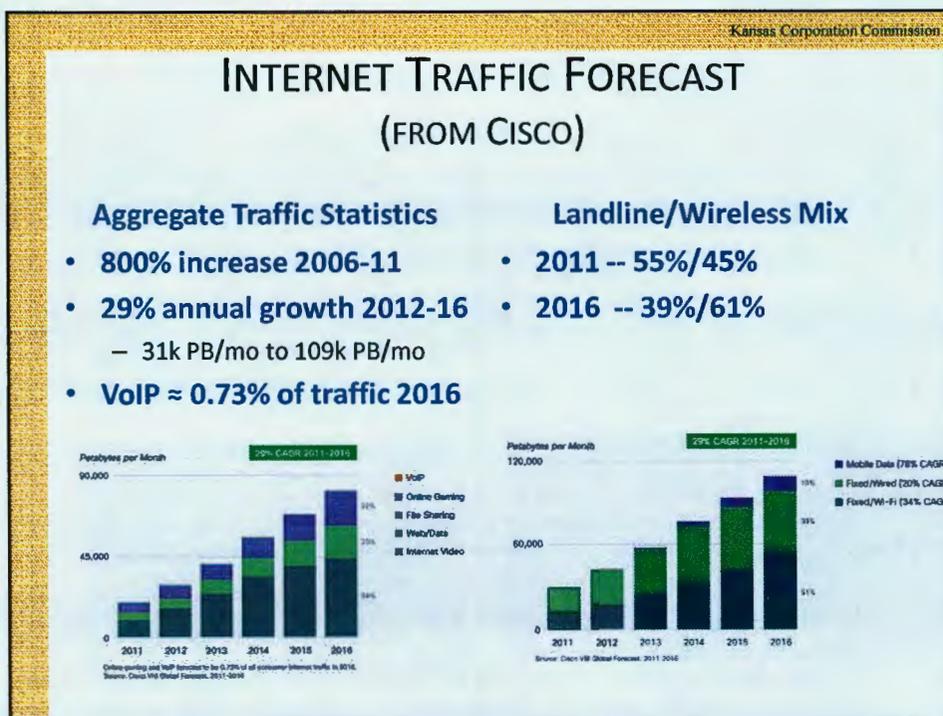
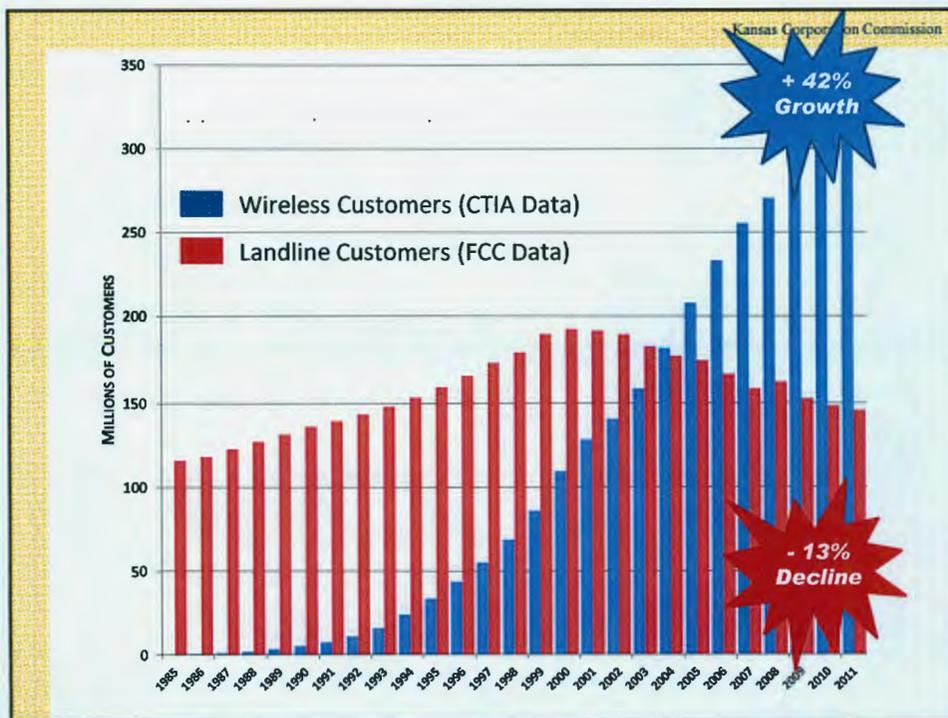
Source: FCC, Order GN Docket No. 11-121 (Aug 21, 2012) & NRRI State USF Survey (July 21, 2012).



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## TELECOM INDUSTRY TRENDS

- Moving toward vertically integrated, one-stop providers
  - Landline, wireless provider, handset, apps, content, typically different companies traversing a variety of services and networks
- Wireless growth dominates the industry
  - Displacement of landline subscribers
  - Long distance, vertical services and access revenues are declining
    - Virtually no regulatory oversight of long haul networks (e.g., Level 3)
  - Landline is becoming support facilities for wireless & data
  - Contracts, not tariffs, dominate customer relationships with carriers
- Data
  - Growth driven by (1) wireless devices, (2) streaming video & apps developers
  - Shared, interconnected packet networks, not circuit switched
    - Interconnection/Peering agreements less formal than telecom interconnection
  - IP backbone consolidation after dot com bust
- FCC moving away from cross-subsidies and recovery of costs through intercarrier compensation





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**Oil & Gas Metrics and Issues**  
*Dealing with Oil Boom & Gas Price Collapse*

Kansas Corporation Commission

### CONSERVATION METRICS

Approximate Annual Metrics	
Oil & Gas Industry	63,000 producing oil wells (41.5 M bbls/yr @ \$88bbl = \$3.6B) 24,400 gas wells (311 Bcf/yr @ \$4/kcf ≈ \$1.2B) 2,400 active licensees; 9,400 inactive licensees 16,244 Class II wells
KCC Responsibilities	<ol style="list-style-type: none"> <li>1. Develop and enforce operational rules regarding drilling.</li> <li>2. Plug abandoned wells and assign financial responsibility.</li> <li>3. Develop and enforce rules related to (a) underground gas storage (b) CO<sub>2</sub> sequestration and (c) compressed air energy storage.</li> <li>4. Investigate and direct spill clean-ups.</li> <li>5. Manage contamination cases</li> <li>6. Manage Class II UIC program</li> </ol>
Activities	28,929 filings processed*; 397 dockets opened; 88 penalty orders issued (*Includes: drilling permits, pit permits, well transfers, completion reports, plugging applications, plugging reports, and UIC applications)
Abandoned Wells	17,731 total – about 5,140 requiring action 400 to be plugged at state expense in 2013 at \$4,250 each 211 10-year Temporary Abandonment applications since 2008

## KANSAS ENERGY CHALLENGES

Issue	Focus
Environmental Compliance Costs	<ul style="list-style-type: none"> <li>About \$2 B in approved environmental compliance costs are working through electric rate cases</li> </ul>
MO "Confer" decision	<ul style="list-style-type: none"> <li>MO Supreme Court decision prohibiting PSC intervention in FERC proceedings based on interpretation of "confer" in MO statutes (KS has similar language); FERC filing anticipated</li> </ul>
Expected EPA NSPS Rules	<ul style="list-style-type: none"> <li>Expectation that EPA will extend New Source Performance Standards (NSPS) for CO<sub>2</sub> emissions to existing coal plants</li> </ul>
Natural Gas Price Collapse	<ul style="list-style-type: none"> <li>Increase in number of gas well shut-ins &amp; abandonments</li> <li>Off-system sales pit coal generation against natural gas (ironically raises electric rates by reducing off-system sales from coal plants)</li> </ul>
Wind Production Tax Credit	<ul style="list-style-type: none"> <li>Loss of federal production tax credit will reduce incentives to invest in Kansas wind</li> </ul>
Private Interest in Renewable Energy	<ul style="list-style-type: none"> <li>Interest by large customers in securing energy from renewable sources and/or independence from reliance on vertically integrated utilities (i.e., interest in on-site generation)</li> </ul>
Spent Fuel Storage	<ul style="list-style-type: none"> <li>Costs and operational issues surrounding storage of spent nuclear fuel in light of Yucca Mountain closure</li> </ul>
Fracking	<ul style="list-style-type: none"> <li>EPA may seek to establish fracking standards or regulate drilling</li> </ul>

## HORIZONTAL DRILLING

Producers must apply for permit to drill a horizontal well

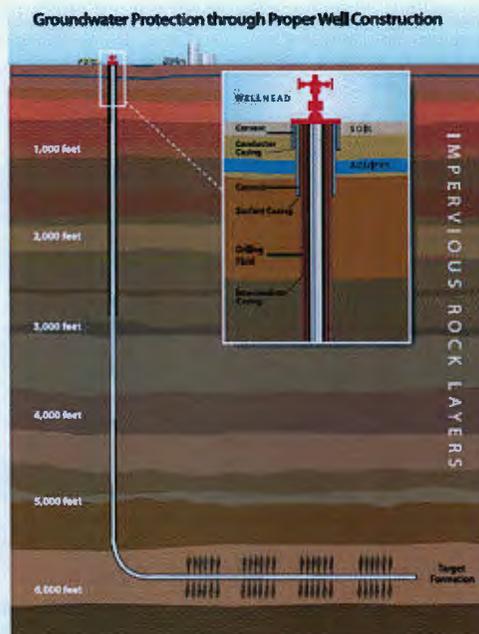
KCC generally looks for:

Compliance with drilling rules

Set-back

Protection of correlative rights

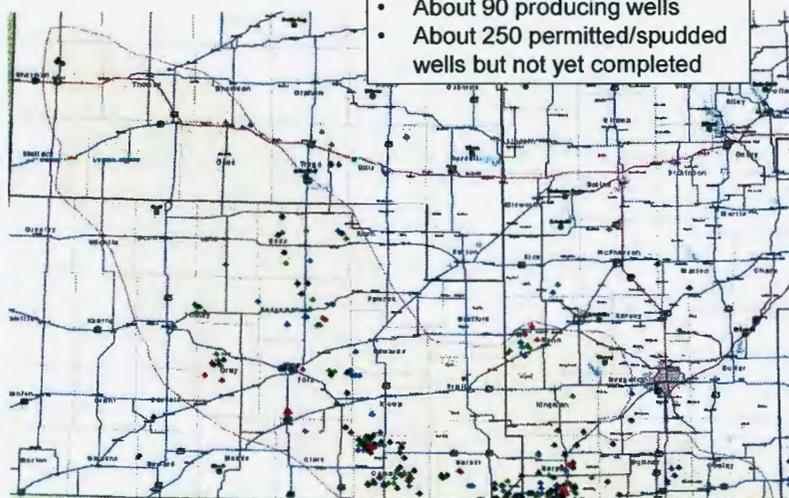
Prevention of waste



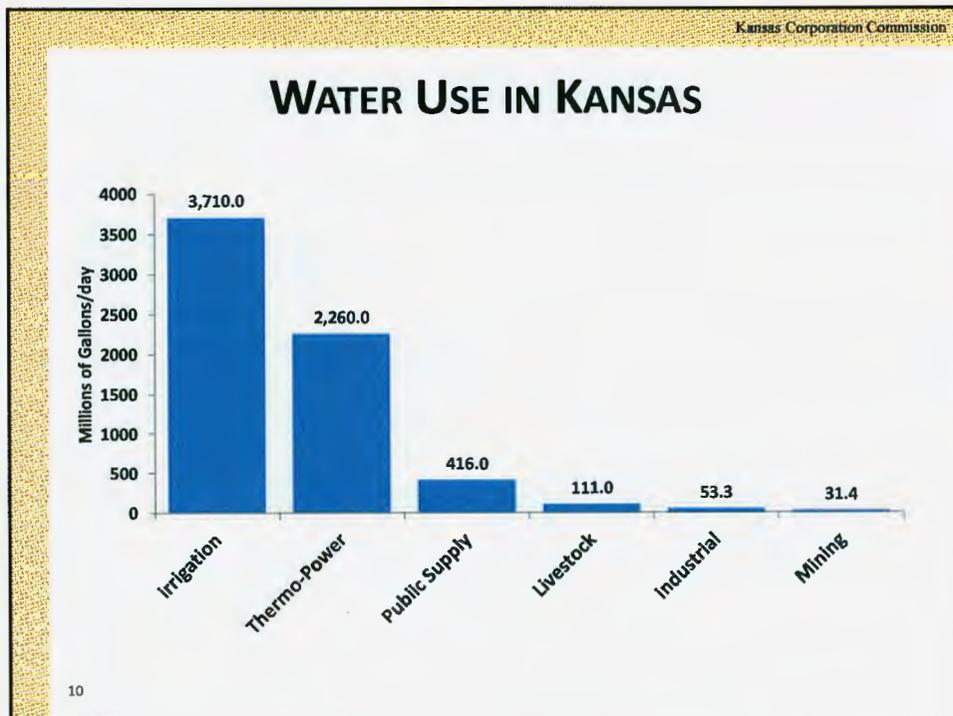
## HORIZONTAL DRILLING & FRACKING

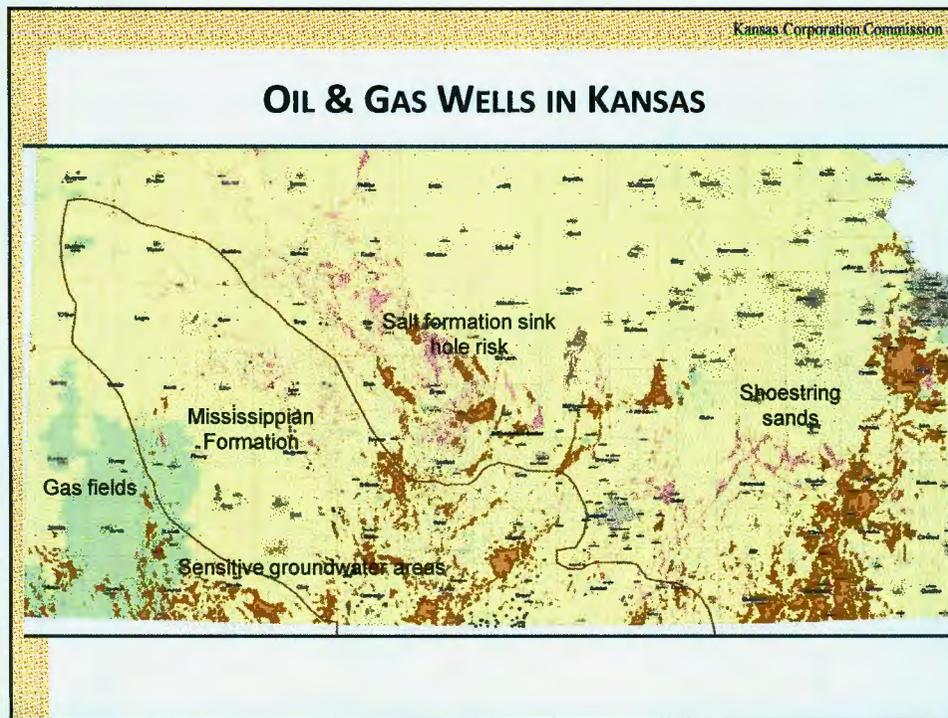
- Horizontal drilling and fracking enables exploitation of previously uneconomic deposits
  - 250 horizontal well permits (Oct 2012) not yet producing
  - 90 producing wells
- Environmental claims
  - Groundwater pollution, earthquakes, air pollution, spreading of drilling waste, boomtown development in rural communities
- Macro benefits
  - US energy independence
  - Natural gas price decreases – reduced consumer heating costs; shift from coal to natural gas (see Environmental Compliance)
- Economic development
  - Each horizontal well contributes \$7.7 M in regional GDP (TX Eagle Ford Shale play estimate by University of Texas)
  - North Dakota experience

## HORIZONTAL WELLS IN MISSISSIPPIAN FORMATION





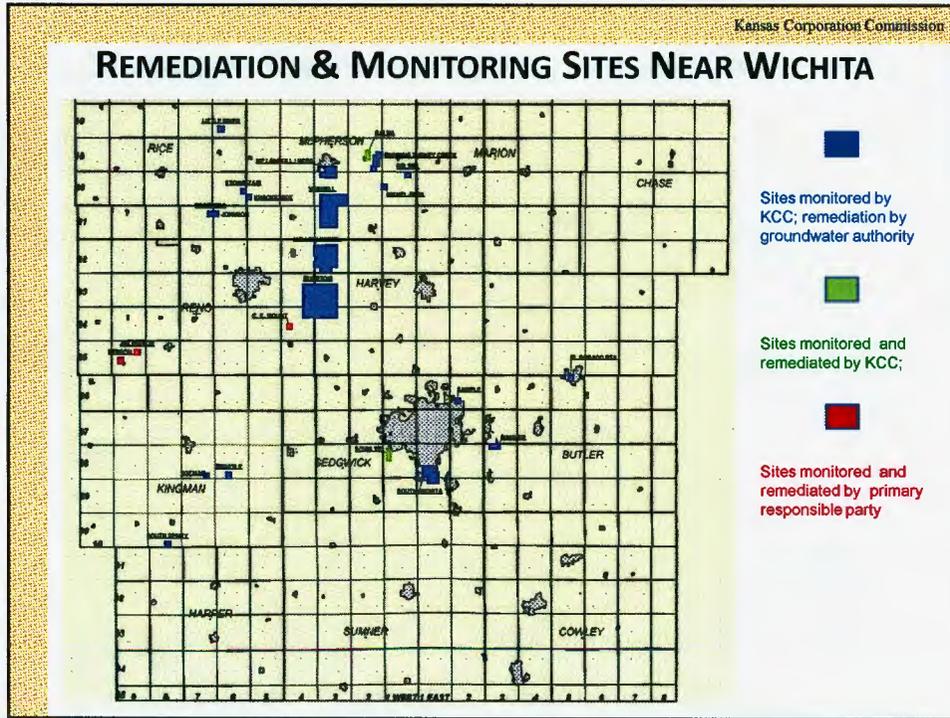


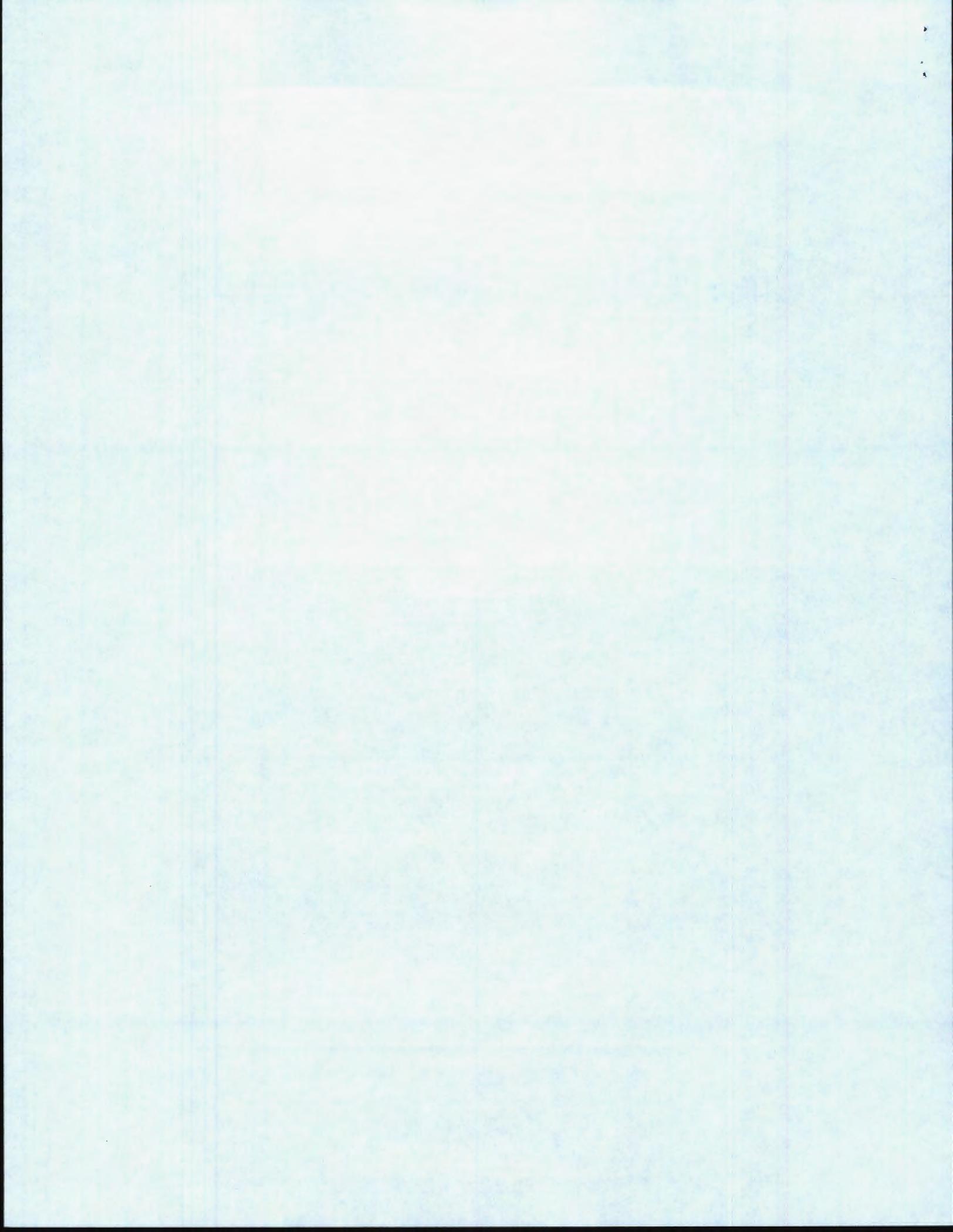


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## ABANDONED WELL ACTIVITIES

Approximate Annual Metrics	
Inventory	<ul style="list-style-type: none"> <li>• Approx 5,600 pre-1996 abandoned wells for which no responsible part can be found</li> <li>• \$1.5 M budgeted for FY 2014 (from State Water Plan (\$355k), Conservation Fee Fund (\$400k), Federal Mineral Leasing program (\$759k))</li> </ul>
History	<ul style="list-style-type: none"> <li>• More than 8,500 abandoned wells plugged since 1996</li> <li>• 127 remediation sites identified; 69 resolved; 58 currently overseen by KCC</li> <li>• 96% of abandoned well sites are in SE Kansas</li> </ul>
Economics	<ul style="list-style-type: none"> <li>• Projected cost of plugging <math>\approx</math> \$4,750/well</li> <li>• Remediation costs <math>\approx</math> \$51k</li> </ul>







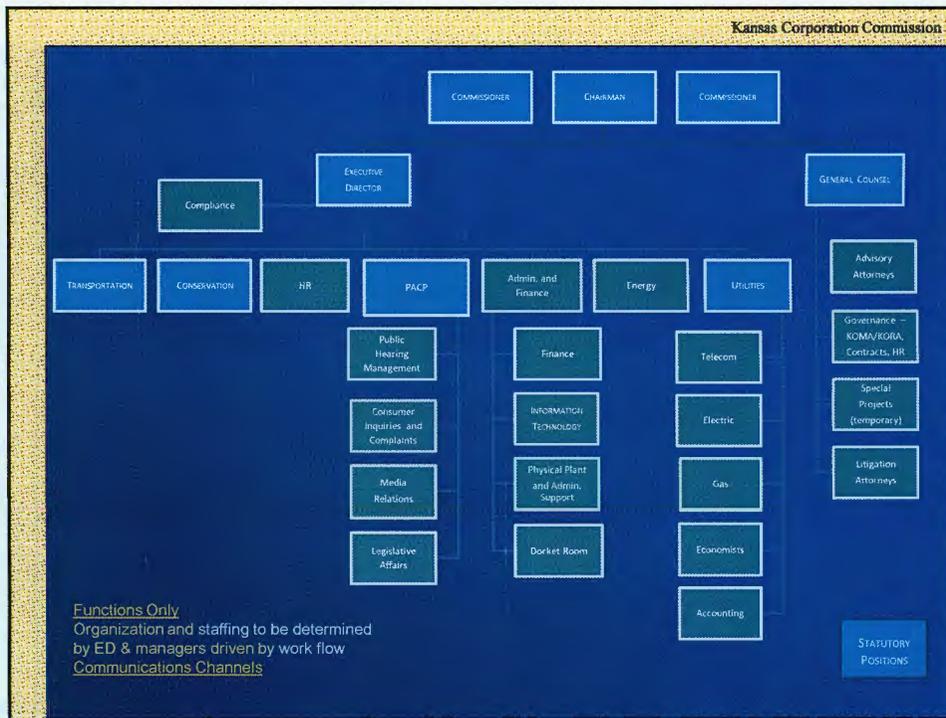
**Kansas**  
CORPORATION COMMISSION

**Agency Management Metrics and Issues**  
*Structural Change, Paper, & Decision-making inhibitors*

Kansas Corporation Commission

### KCC ACTIVITY METRICS -- 2013

Activity	Approximate Annual Metrics
Staffing & Budget (2013)	211.5 FTE; \$22.4M; fee funded
Agency filings	5,000 filings; 2,200 orders 1,200 dockets opened 20 federal (FERC & FCC) filings
Major Proceedings > 80 hours to complete	18 proceedings; 4 appeals; 20,000 hours of professional staff time 8,700 hours of legal staff time
Oil & Gas wells	3,900 well inspections; 6,757 well permits granted 273 + horizontal wells
Transportation	57,000 drivers & 35,000 vehicle inspections 450 compliance reviews/audits 160 educational seminars (1,800 attendees)
Pipeline Safety	700 person-days on-site inspections
Public Affairs	2,767 complaints; 2,709 public comments; \$103,471 returned to consumers



Kansas Corporation Commission

## ADMINISTRATIVE CHALLENGES

Issue	Challenge
Paper Processing	<ul style="list-style-type: none"> <li>• Every filing w/KCC requires 7 or 9 paper copies</li> <li>• Review and processing by agency is slow, manual and even routine matters are circulated to all three Commissioners for action</li> </ul>
No Delegation of Authority	<ul style="list-style-type: none"> <li>• Processing of routine items (e.g., \$100 trucking or conservation fines) should not require review and approval by 3 political appointees, but delegation of authority is legally complicated</li> </ul>
Restrictions on Consultation and Communications with Commission Staff	<ul style="list-style-type: none"> <li>• Consultation with Staff in cases where Staff is a party-litigant is significantly restricted (e.g., can't ask Staff for anything that is not already in the record, can't ask for analyses not in the record or just ask for substantive advice or analyses)</li> </ul>
Restrictions on Commissioner Communications	<ul style="list-style-type: none"> <li>• Open meeting laws inhibit dialog between Commissioners on all matters affecting: (1) cases before the Commission; (2) forward-looking policy making; and (3) agency management</li> </ul>
Tenure & Turnover	<ul style="list-style-type: none"> <li>• Average tenure of PUC Commissioner in US is 3 years so agency management changes tend toward haphazard/short-term focus and most Commissioners are constantly on a steep learning curve</li> <li>• Staff career development &amp; increased wage opportunities are with industry, not in long-term public service</li> </ul>

## INITIATIVES FOR 2012

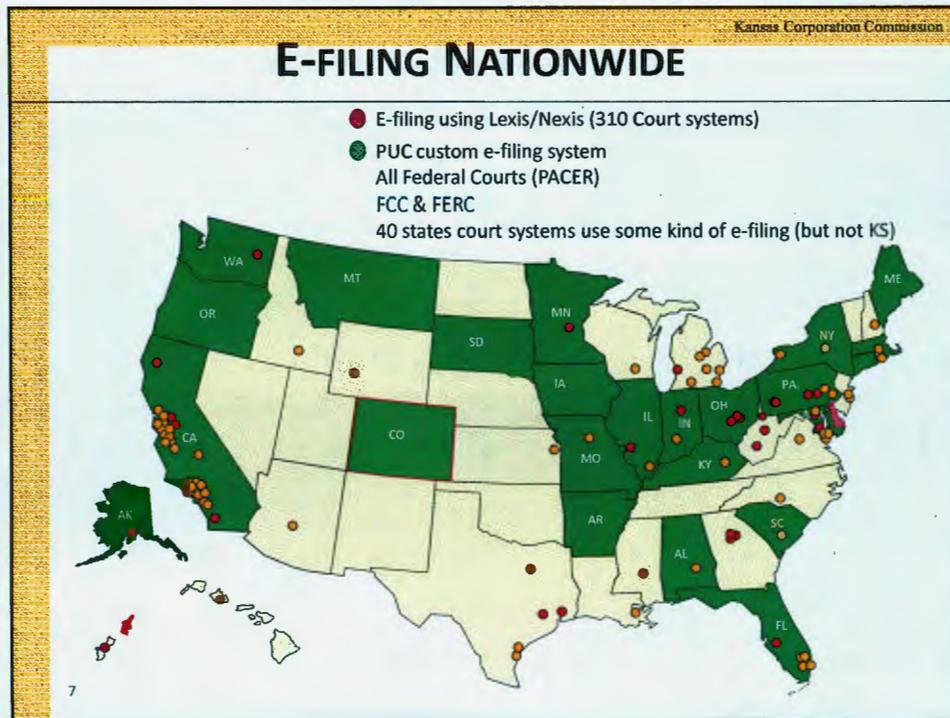
### RESPONDING TO NATIONAL CHALLENGES

- Keep the Lights On
  - KS electricity is 67% coal-fired generation
  - CASPR & MACTS impacts on power plant costs
    - 3 major new EPA rules – NSPS, 316(b) & Coal Ash
- Major Generic Dockets
  - Impact of FCC USF reform on KUSF & KS communications costs
  - Energy Efficiency (see *"Keep the Lights On"*)
  - Nuclear waste disposal (Yucca Mtn closure)
- Mississippian Play
  - Emerging environmental regulations

## INITIATIVES FOR 2012

### IMPROVING OUR OPERATIONS

- Streamline processing of transportation orders
- Web site face-lift
- Bottoms-up Job Analysis/Performance Appraisals w/Deliverables
- Electronic filing and docket management
  - E-filing of all documents
  - Electronic processing of documents and orders



Kansas Corporation Commission

## INITIATIVES FOR 2012

➤ Innovation Culture – Covey's 7 Habits + 1

1. Be proactive rather than reactive
2. Begin with the end in mind (What does success look like?)
3. Put first things first -- focus on the important not the urgent
4. Pareto improvement -- does this make anyone better off without making someone worse off
5. Ask more questions than you answer; seek first to understand, then to be understood
6. Synergize -- leverage differences to create a better solution
7. Sharpen the saw through personal renewal
8. *Be the change you wish to see in the world.* Mohandas Ganhdi